USER MANUAL
FOR THE
HOTSPOTS ANALYSIS AND REPORTING PROGRAM
EMISSION INVENTORY MODULE
VERSION 2.0

Last Revised: June 29 , 2015

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1. OVERVIEW

The Hotspots Analysis and Reporting Program (HARP) is a software suite used to assist with the programmatic requirements of the Air Toxics "Hot Spots" Program. HARP combines the tools of emission inventory database, facility prioritization, air dispersion modeling, and health risk assessment analysis. In the latest version of HARP, the HARP modules have been separated into three individual programs which will allow users to access any of the modules independently from each other. However, information can still be shared between each program. For consistency, the three programs are still referred to as the Emission Inventory Module (EIM), Air Dispersion Module, and the Risk Assessment Module.

Users of the HARP should have a working knowledge of air dispersion modeling, the Air Resources Board's (ARB) Emission Inventory Criteria and Guidelines, and the risk assessment methods and procedures outlined in the Office of Environmental Health Hazard Assessment's (OEHHA) document Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

HARP can be used by Air Pollution Control and Air Quality Management Districts (districts), facility operators, and other parties to manage and evaluate emissions inventory data and the potential health impacts associated with these emissions. The use of HARP promotes statewide consistency, increases the efficiency of evaluating potential health impacts, and provides a cost-effective tool for developing facility health risk assessments.

HARP may be used to assess the potential health impacts from a single facility or multiple facilities in proximity to each other, where a single meteorological data set is appropriate for all the included facilities. However, other applications may be appropriate depending on the user's expertise and presence of adequate data.

Although designed to meet the programmatic requirements of the Air Toxics "Hot Spots" Program, HARP may be used for preparing risk assessments for other air related programs (e.g., air toxic control measure development, facility permitting applications). Therefore, each user of the HARP software should know the requirements of the regulation or program they are addressing before using the HARP software and reporting results.

HARP is developed using Microsoft Visual Studio 2010 Visual Basic .NET. An open source software NPlot is used for plotting in HARP.

a. How is this User Guide Organized?

This document relates to information about the HARP EIM.

- Section 4 provides an overview of the user interface.
- Sections 5 through 7 provide information about project concepts and database designs.
- Sections 8 through 10 provide information on the data entry screens and how to manually enter data into the program.
- Sections 11 through 14 provide information on how to import, export, query, and create reports.
- Section 15 provides information on advanced features in the program (e.g., importing from an Excel document).

Please note that this document does not provide guidance or list the requirements of the Air Toxics Hot Spots Program. Please refer to ARB's Emission Inventory Criteria and Guidelines at http://www.arb.ca.gov/ab2588/2588guid.htm.

b. What can the Emission Inventory Module Do?

The HARP EIM will create and manage facility emission inventory databases. This data can be transmitted to the local air districts and the ARB. The HARP EIM can also calculate facility prioritization scores.

c. What is the Air Toxics "Hot Spots" Program?

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987) was enacted in September 1987. Under this Act, stationary source facilities are required to report the types and quantities of certain substances their facilities routinely release into the air. Emissions of interest are those that result from the routine operation of a facility or that are predictable, including but not limited to continuous and intermittent releases and process upsets.

The goals of the Air Toxics "Hot Spots" Act are to collect emissions data, to identify facilities having localized impacts, to ascertain health risks, and to notify nearby residents of significant risks. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731 to address the reduction of significant risks. The bill requires that owners of significant-risk facilities reduce their risks below the level of significance. The Act requires that toxic air emissions from stationary source facilities be quantified and compiled into an inventory according to criteria and guidelines developed by the ARB, that each facility be prioritized to determine whether a risk assessment must be conducted, that the risk assessments be conducted according to methods developed by the OEHHA, that the public be notified of significant risks posed by nearby facilities, and that emissions which result in a significant risk be reduced. Since the amendment of the statute in 1992 by enactment of SB 1731, facilities that pose potentially significant health risks to the public are required to reduce their risks, thereby reducing the near

source exposure of Californians to toxic air pollutants. Owners of facilities found to pose significant risks by a district must prepare and implement risk reduction audits and plans within 6 months of the determination.

For more information on the Air Toxics "Hot Spots" Program, please visit ARB's website at http://www.arb.ca.gov/ab2588/ab2588.htm.

2. GETTING STARTED

This section provides information for new users.

a. Installing the HARP EIM

Before installing the HARP EIM on your computer, please review the system requirements. If you need technical support, please contact the Air Resources Board's Stationary Source Division, Emission Assessment Branch at (916) 323-4327 or send an email to harp@arb.ca.gov.

Can I install the HARP EIM with Older Version of HARP 1.x?

The HARP EIM can be installed to a computer with an older version of HARP.

Default Installation Folder

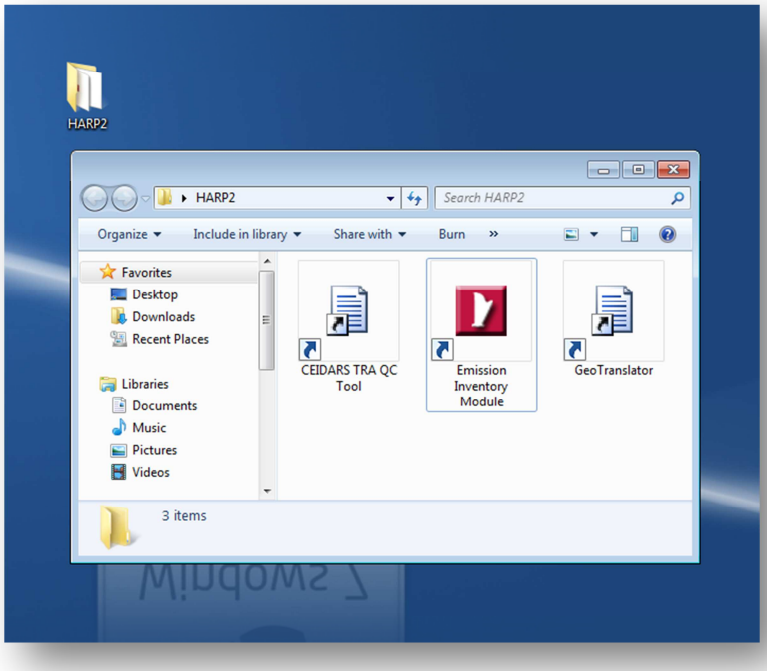
The default destination folder is C:\HARP2. It is recommended that you install to the default destination folder.

Desktop Shortcuts

During the installation process, the installer will create a HARP folder on your desktop. The HARP folder will contain shortcuts to the HARP EIM, a tool for validating CEIDARS transaction files (See Section 15.g), and a tool for converting coordinates from one system to another (See Section 15.e).

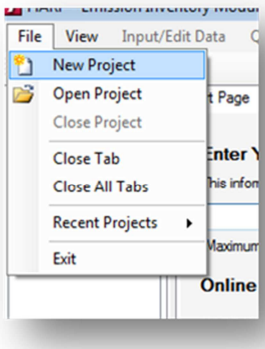
b. Opening the Program

To open the HARP EIM, open the HARP2 folder located on your desktop and double-click on the ***Emission Inventory Module*** icon.

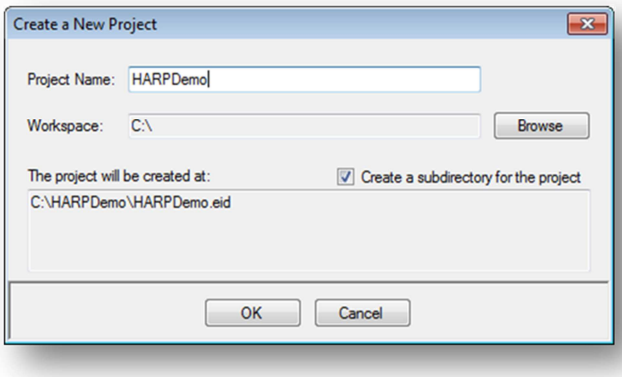


c. Creating a New Project

To create a new project, click ***File\New Project*** in the main menu. For more information on what a project is, see Section 5.



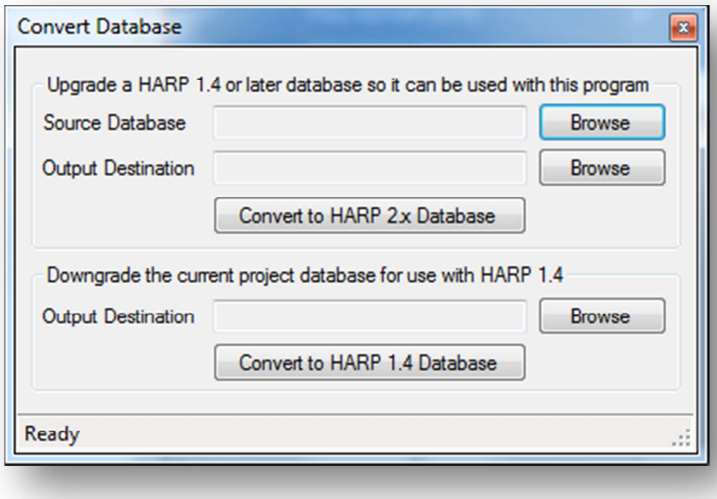
Enter a project name and click ***OK***.



d. Importing Data from the Previous HARP Version

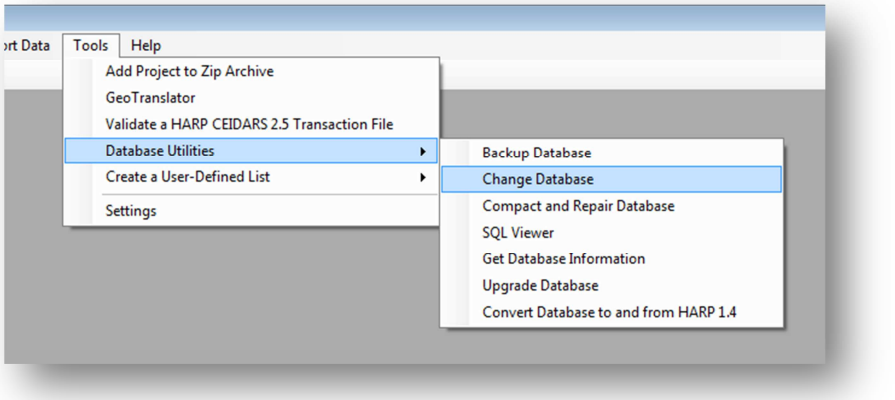
If you want to import your facility and emission inventory database from the previous version of HARP, follow the instructions below.

To convert the older database, select ***Tools\Database Utilities\Convert Database to and from HARP 1.4*** in the main menu.

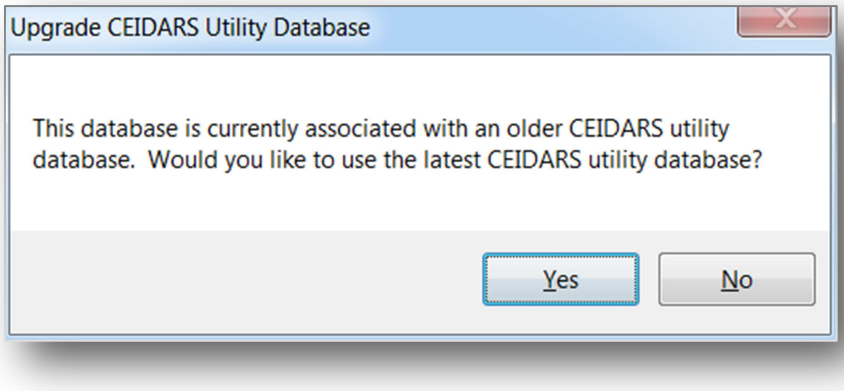


In the ***Source Database*** area, click ***Browse*** and select the older HARP database. Next, choose the output destination and then click ***Convert to HARP 2.x Database***.

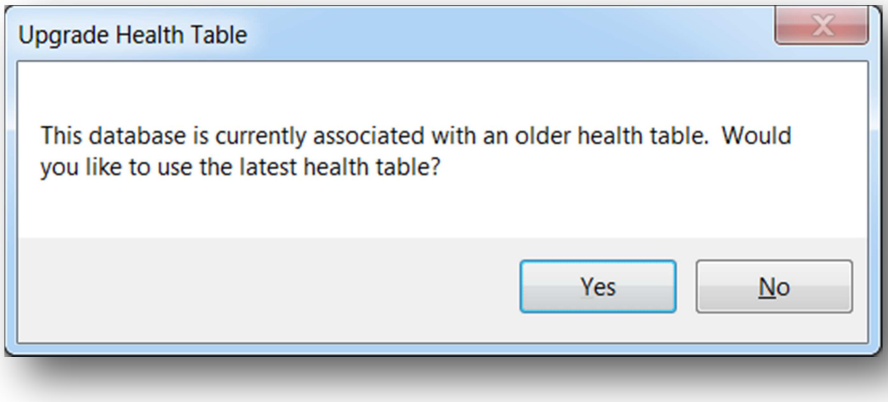
To change to the newly converted database, click ***Tools\Database Utilities\Change Database*** in the main menu. You can also change the database using the ***Project Panel***. See Section 4.c for more information.



If your project used an older version of CEIDARS utility database, the program will prompt an option to use the latest version of CEIDARS utility database. Please see section 6.b for more information about CEIDARS utility database.



If your project used an older version of the health database, the program will prompt an option to use the latest version of the health database.



e. Getting Familiar with the Program

It is best to review this user guide before attempting to use the program. Help files are also available in various areas in the program.

- Section 4 provides an overview of the user interface.
- Sections 5 through 7 provide information about project concepts and database designs.
- Sections 8 through 10 provide information on the data entry screens and how to manually enter data into the program.
- Sections 11 through 14 provide information on how to import, export, query, and create reports.
- Section 15 provides information on advanced features in the program (e.g., importing from an Excel document).

f. Training

Training for this program is still being developed. Please sign up on the HARP listserver for updates at http://www.arb.ca.gov/listserv/listserv_ind.php?listname=harp

3. SYSTEM REQUIREMENTS

Before installing the HARP EIM on your computer, please review the system requirements. If you need technical support, please contact the Air Resources Board's Stationary Source Division, Emission Assessment Branch at (916) 323-4327 or send an email to harp@arb.ca.gov.

System Requirements

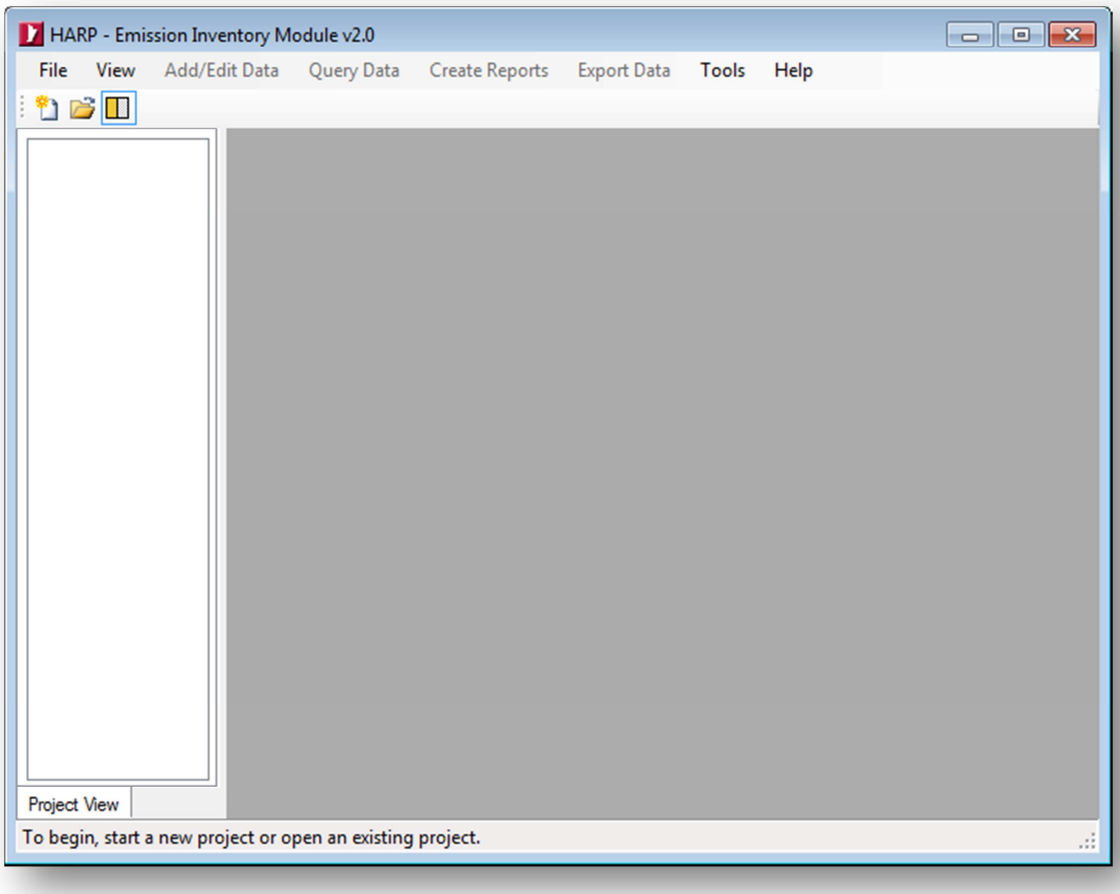
- Any Microsoft Windows operating system that supports the Microsoft .NET Framework 4.5.
- 50 MB of free hard drive space for the HARP EIM program files

4. USER INTERFACE OVERVIEW

This section provides an overview of the HARP EIM user interface.

a. Main Screen

Below is s screenshot of the main screen of the HARP EIM. The main screen is divided into two sections. The left-side of the screen is called the ***Project Panel***. See Section 3.c for more information about the ***Project Panel***. The right-side of the screen is the application workspace. When various screens are opened, the screens appear and are organized as tab pages in the application workspace. See Section 3.d for more information about the tab pages.



b. Main Menu Options

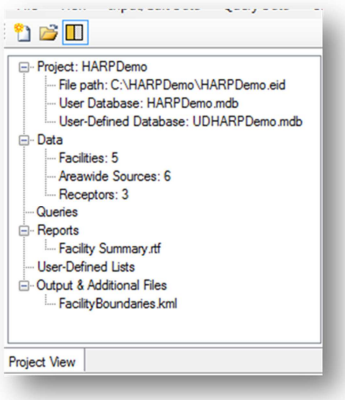
The table below provides a description of each of the main menu options. The table also provides the section location for more information.

Menu Option	Description	Section Reference
File		
New Project	Creates a new project	5.a
Open Project	Opens an existing project	5.b
Close Project	Closes the current project	5
Close Tab	Closes the current focused tab	4.d
Close All Tabs	Closes all tab windows	4.d
Recent Projects	Displays up to four of the most recently opened projects	5
Exit	Closes the program	
View		
Project View	Hides or shows the Project Panel	4.c
Start Page	Opens the Start Page	4.d
Add/Edit Data		
Facilities and Emission Data	Opens the Facility Explorer Screen	4.d & 8
Areawide (Regional) Source Data	Opens the Areawide Explorer Screen	4.d & 9
Receptor Data (e.g., Schools)	Opens The Receptor Data Screen	4.d & 10
Import Data		
Query Data	Opens a query window for retrieving records from the user database	4.d & 12
Create Reports		
Facility Emissions Report	Creates an emission summary report for a single or group of facilities	4.d & 13.a
Area Source Emissions Report	Create an areawide source emission summary report	4.d & 13.b
Quality Assurance Report	Creates a quality assurance report	4.d & 13.c
Prioritization	Creates and calculates facility prioritization scores	4.d & 13.d
Export Data		
Export Data to HARP CEIDARS 2.5 Transaction File	Export data from the user database to a HARP CEIDARS 2.5 transaction file	14.b
Export Data to HARP Database	Export data from the user database into a new HARP database	14.c
Export Data for Air Dispersion Analysis	This feature will be available when the new Air Dispersion Module is completed	
Tools		
Add Project to Zip Archive	Consolidates a project and associated files to a single zip file. 7-Zip must be installed	15.f
GeoTranslator	A tool for converting coordinates from one system to another	15.e
Validate a HARP CEIDARS 2.5 Transaction File	A tool for validating HARP CEIDARS 2.5 Transaction Files	15.g
Database Utilities	Tools for backing up, upgrading, converting, fixing, quering the user database.	6.a & 15.b
Create a User Defined List	Create user-defined list for automating functions in the program	15.a
Settings	Access to settings of the program	6.d, &15.f

Help		
Help	Link to the user guide	
About the HARP Emission Inventory Module	See version information about the program	

c. Project Panel

The project panel is a graphical representation of an Emission Inventory Project. The project panel displays basic information about your emission inventory and data connections. See Section 5 for more information about an Emission Inventory Project.



The table below provides a description of each of the nodes displayed in the project panel.

Name	Description	Mouse Double-click Function	Mouse Right-click Function
Project	Displays the name of the project	Collapses or expands the node	Create a zip file of the project; opens the project folder location
File Path	Displays the file path of the project	None	None
User Database	Displays the connected database	None	Change the database; Backup database
User-Defined Database	Displays the connected database	None	None
Data	Parent node for data counts	Collapses or expands the node	None
Facilities	Displays the number of facilities in the connected database	Opens the Facility Explorer Window	None
Areawide Sources	Displays the number of areawide sources in the connected database	Opens the Areawide Sources Explorer Window	None
Receptors	Displays the number	Opens the Receptor	None

	of receptors in the connected database	Explorer Window	
Queries	Displays a list of queries associated with the project	Collapses or expands the node	Create or add an existing query
Reports	Displays a list of reports associated with the project	Collapses or expands the node	Create or add an existing report
User-Defined Lists	Displays a list of user-defined lists associated with the project	Collapses or expands the node	Create or add an existing a user-defined list
Output & Additional Files	Displays a list of files associated with the project	Collapses or expands the node	Open folder location

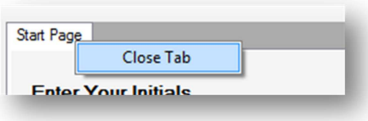
d. Tab Pages

When windows are opened in the HARP EIM, the windows are displayed as tab pages in the application workspace on the left-side of the main screen. This section provides information on the types of tab pages that are available in the HARP EIM.

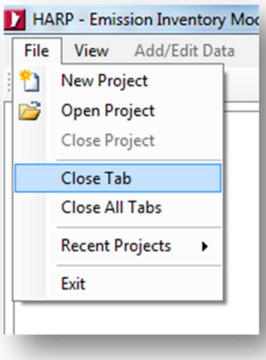
Closing Tab Pages

Below are several ways to close a tab page.

- Hover over the tab name and right-click using the mouse. Then click ***Close Tab***.



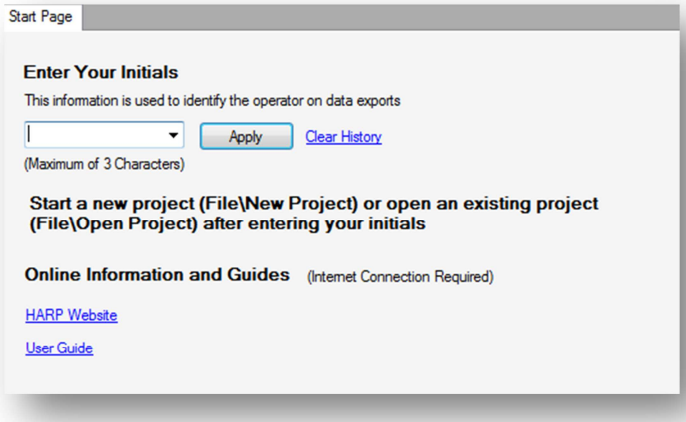
- Click on a tab page and then select ***File\Close Tab*** in the main menu.



- Select ***File\Close All Tabs*** in the main menu to close all open tabs.

Start Page

Each time the HARP EIM starts up, a start page automatically appears in the workspace as a tab page. The start page provides a starting point for the user. On this page, the user can set their initials for data exports. The start page also contains links for more information on HARP.

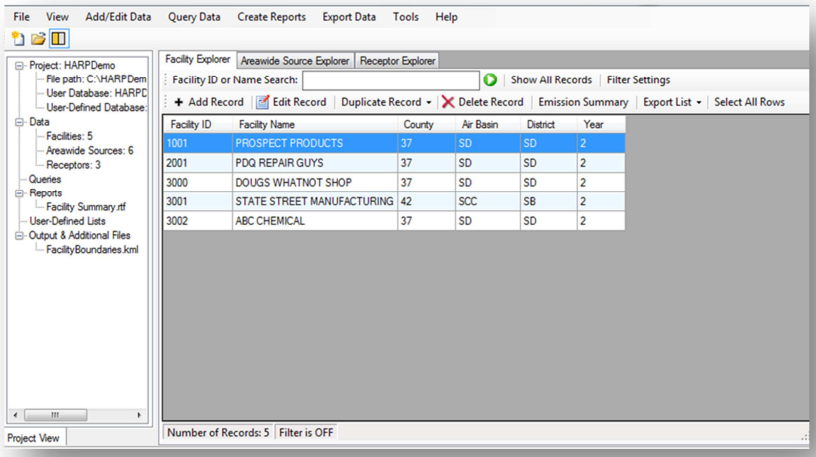


To set your initials, type your initials into the text box and click ***Apply***. The maximum number of characters allowed is eight. The HARP EIM will also remember all initials that were previously set for quicker entry. To see the list of previous users, click on the arrow in the text box and select a user name. To clear the list, click ***Clear History***.

Explorer Screens

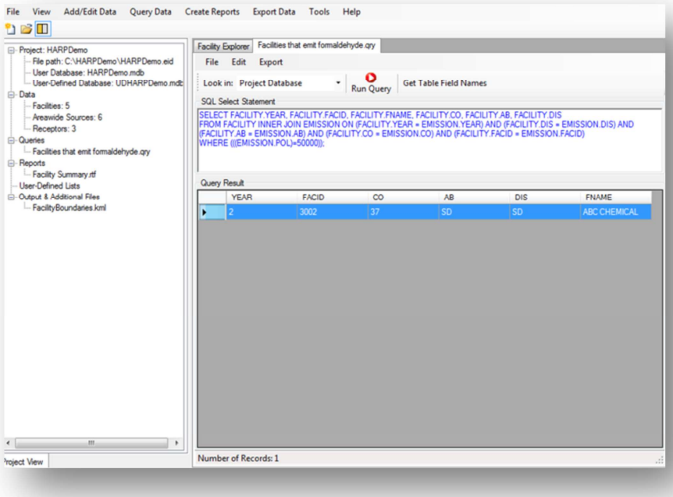
The explorer screens allow you to quickly view the facility, areawide source, and receptor data in your database. Each data type has its own screen. With these screens, data can be filtered, sorted, deleted, and duplicated. You can also search for a specific record. In addition, you can select a single or group of facilities or areawide sources and view the reported emissions. See Section 6 for detailed information on how to operate these screens.

To access an explorer screen, click ***Add/Edit Data*** in the main menu and select one of the data types (i.e., ***Facilities and Emission Data***, ***Areawide (Regional) Source Data***, or ***Receptor Data***). You can also double-click on one of the nodes under ***Data*** in the ***Project Panel***.



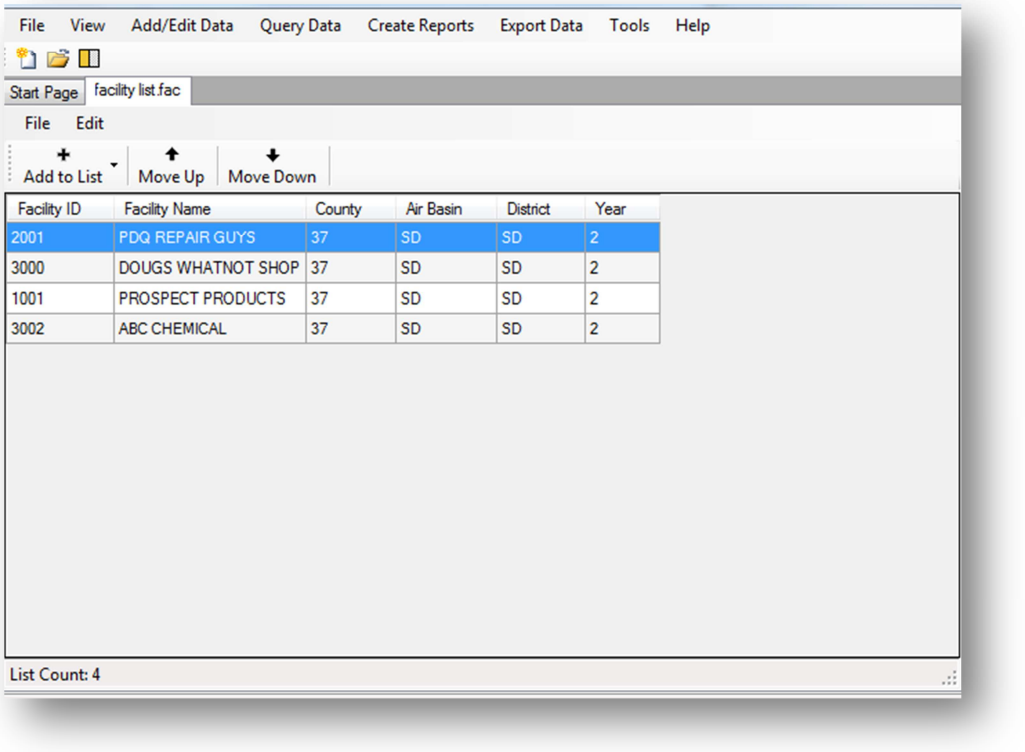
Query Screen

The query screen allows you to retrieve custom and detailed information from your database and export the information to a Comma Separated Values (CSV) file. In order to use this feature, you must have some experience with Structured Query Language (SQL). To create a new query, click ***Query Data*** in the main meu. To access an existing query double-click on a query under the ***Queries*** node in the ***Project Panel***. See Section 12 for more information about using the query screen.



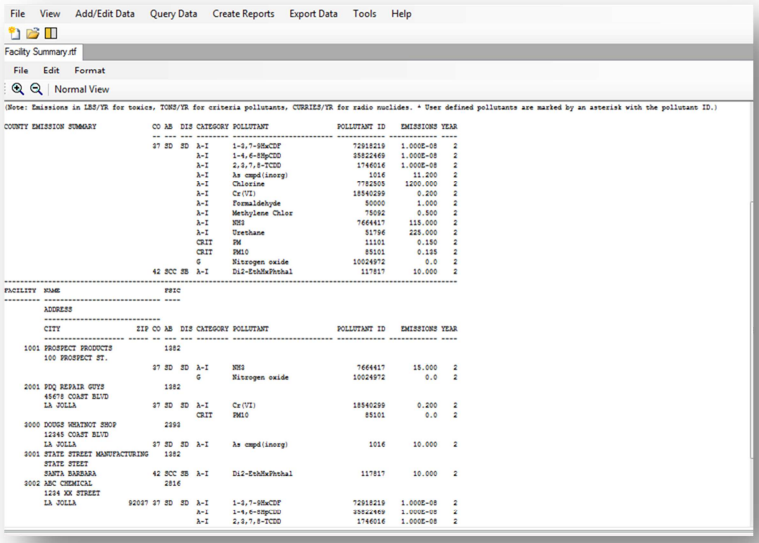
List Screen

The list screen allows you to view and edit user-defined lists. These lists are used to help automate some of the features (e.g., creating reports and exporting data) in the EIM. There are three types of user-defined lists that can be created which include facility, pollutant, and receptor. To view an existing list, select a list under the ***User-Defined Lists*** node in the ***Project Panel***. To create or edit a new list, see Section 15.a for more information.



Report Screen

The report screens allow you to view reports that you create in your project. In the report screen you can view, print, and export a report. There are also basic controls for viewing the pages. The report screen is automatically displayed when you create a new report. See Section 13 for a description of different reports available in the HARP EIM. To open an existing report, double-click on a report under the ***Report*** node in the ***Project Panel***.



e. Data Entry Screens

The facility, areawide source, and receptor data each have their own data entry screen. The data entry screens can be accessed by double-clicking on a record or by selecting a record and clicking on ***Edit Record*** on the explorer screen's main menu. The data entry screens are discussed in more details in Sections 8, 9, and 10.

5. EMISSION INVENTORY PROJECT

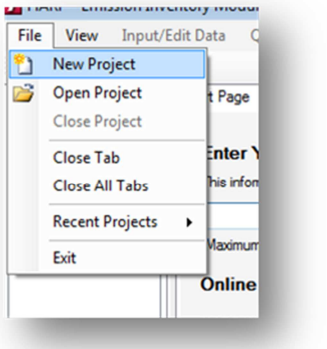
An Emission Inventory Project simply acts as a container to keep track of all the data and file connections that are associated with your emission inventory. It is also the location on your computer hard drive where all the files created for your emission inventory are saved. It also stores your preferences and filter settings for the program.

Information about the project is displayed graphically in the ***Project Panel***. The project settings can be changed in the ***Project Panel***. See Section 4.c for more information about the ***Project Panel***.

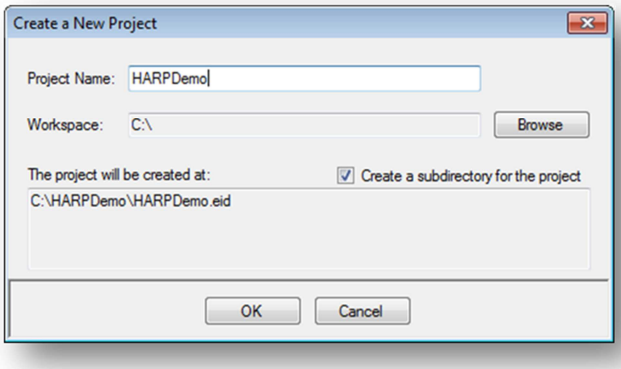
The main project file has the file extension ***EID***. In the main screen, the four most recent opened projects are displayed under ***File\Recent Files*** in the main menu.

a. Create a New Project

To create a new project, click ***File\New Project*** in the main menu.

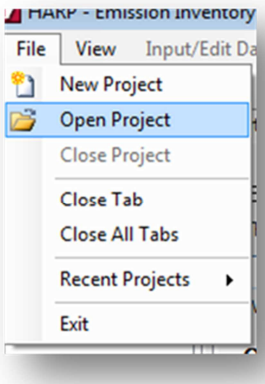


Enter a project name and click ***OK***.

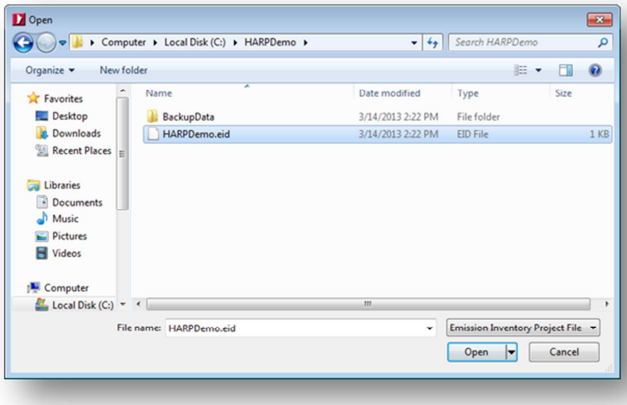


b. Open an Existing Project

To open an existing project, select ***File\Open Project*** in the main menu.



Browse to the location of the project file (*.EID), then click ***Open***.



6. DATABASES

The HARP EIM uses several Microsoft Access Databases for either storing or looking up data. When you create a project, it is automatically associated to the databases. These databases are used for storing your emission inventory data, assisting with data entry, or prioritization calculations. This section describes the types of databases connected to your project.

a. User Database

The user database is where all the emission inventory data is stored. The section describes the structure of the database, how to change to another database, converting a database to an older HARP format, and upgrading a database.

Database Structure

The user database is based on the California Emission Inventory Development and Reporting System (CEIDARS) database for source information. Source information contains the basic data on the facilities, stacks, devices, and processes that emit toxics and criteria pollutants into the air. There are two types of sources: point (facility) and areawide. Point sources are generally large sources that are individually identified in the database and have fixed locations, such as power plants or steel mills. Areawide sources are generally small sources that individually emit small quantities of pollutants but collectively result in significant emissions. Examples of areawide sources are smaller plants not accounted for in the point source inventory, and sources of emissions occurring over broad geographic locations, such as pesticide usage, applications of architectural coatings, and motor vehicle activity. In addition to point and areawide sources the user database also stores sensitive receptor information (e.g., schools and daycares).

Information generated and collected for point and areawide sources are stored in the tables listed below. For a detailed description of these tables and fields, see the CEIDARS Data Dictionary at http://www.arb.ca.gov/app/emsinv/dist/doc/datadict.pdf.

- ***FACILITY*** - This table contains the name, address and Universal Transverse Mercator (UTM) of each emitting facility in CEIDARS. A combination of the county identification (ID), the facility ID, the airbasin code and the district code uniquely identifies a facility. These four fields together form the primary key for the table.

- ***STACK*** - This table contains the pertinent stack parameters for all the facilities which have stacks. These parameters include stack height, flow rate, diameter, temperature and UTM coordinates of each stack. Not all facilities have stacks.

The primary key for the stack table consists of the county ID, facility ID, airbasin code, district code, and the stack ID.

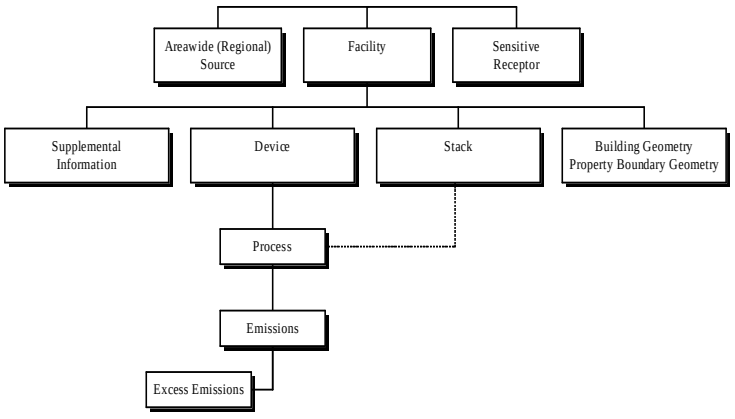
- ***DEVICE*** - This table contains the information identifying each device in a facility which has emitting processes. Each facility identified in the database should have one or more devices. Data stored in this table includes local device name, permit ID, and number of devices represented. The primary key to the device table is the county ID, facility ID, air basin code, district code and the device ID.

- ***PROCESS*** - This table identifies all processes which emit pollutants. For point sources, each device identified in the database has one or more emitting processes. For area sources, each category of emissions is identified as a process. This file includes processing information such as monthly throughput, process rate, process descriptions, operating cycles, and stack ID (if the emissions from the process are vented to a stack). Processes and devices may emit pollutants directly to the ambient environment or they may be vented to a stack. Several devices and many processes may be vented to a single stack. The primary key to this table is the county ID, facility ID, air basin code, district code, device ID and the process ID.

- ***EMISSION*** - This table contains the actual emissions for each emitting process. Each process emits one or more pollutants. For each pollutant emitted, the table carries information on the emission factors used, amounts emitted, methods of calculation and types and efficiency of control equipment used. The primary key to this table is the county ID, facility ID, air basin code, district code, device ID, process ID and the pollutant ID.

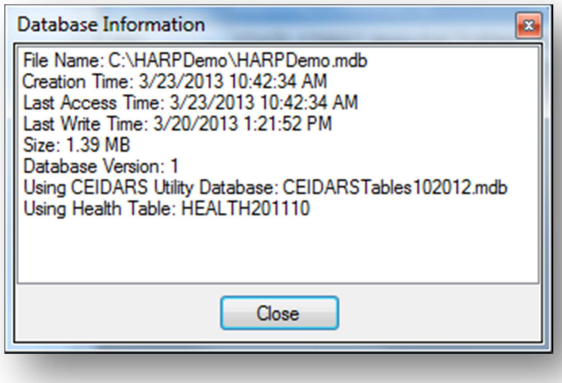
- ***EXCESS*** - This table records the unplanned excess emissions, which may result from breakdowns, variances, or unusual occurrences. The primary key to this table is the county ID, facility ID, air basin code, district code, device ID, process ID, the pollutant ID, along with the type, year and quarter of the excess emissions.

The figure below is an illustration of how the tables are tied to each other in the database.

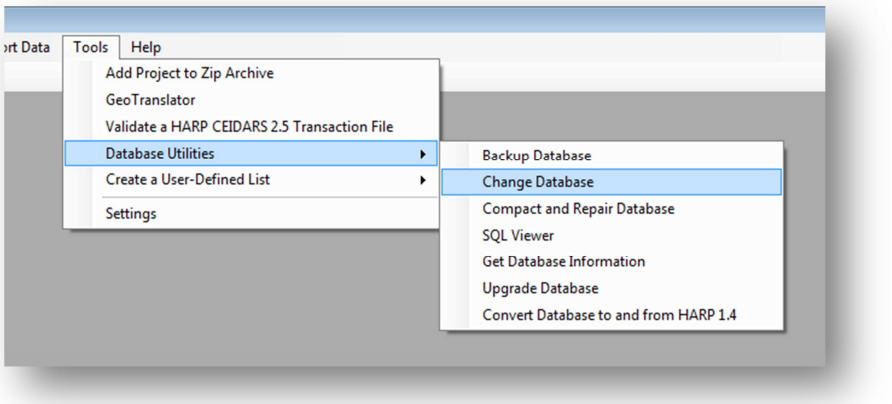


i. Connecting to a User Database

By default, a user database is automatically created and associated to your project when the project is first created. To view the information (e.g., file location, version number) about your database, select ***Tools\Database Utilities\Get Database Information*** in the main menu.



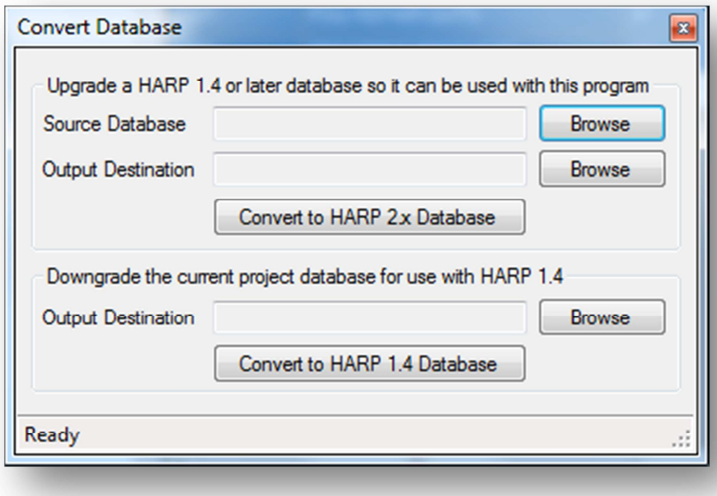
To change to a different database, click ***Tools\Database Utilities\Change Database*** in the main menu. You can also change the database using the ***Project Panel***. See Section 4.c for more information.



ii. Converting a Database

The user database in HARP 2.x is different from the previous versions of HARP (1.4x). You can upgrade an older HARP 1.4 database so it can be used with this program or vice versa.

To convert the older database, select ***Tools\Database Utilities\Convert Database to and from HARP 1.4*** in the main menu.

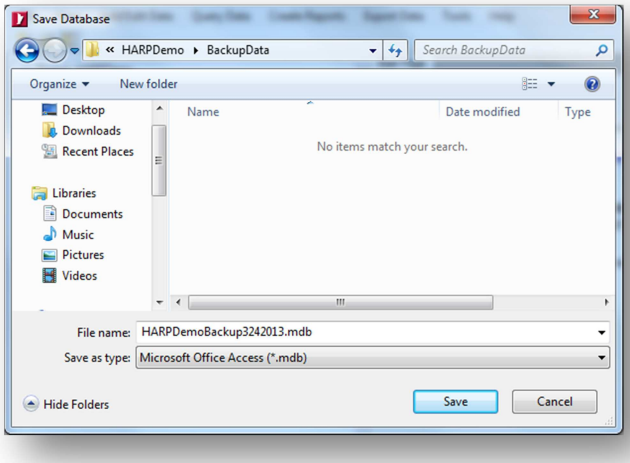


In the ***Source Database*** area, click ***Browse*** and select the older HARP database. Next, choose the output destination and then click ***Convert to HARP 2.x Database***.

To connect to the new database, refer to Section 6.a.i on how to change the database connection.

iii. Backing Up a Database

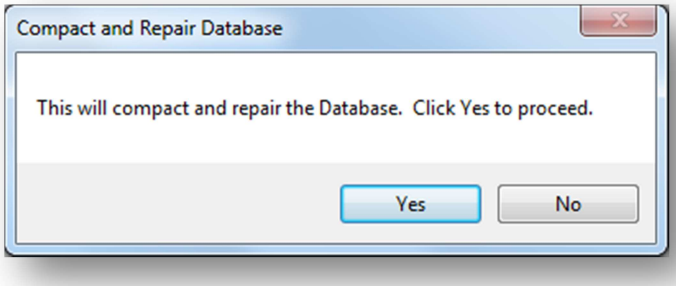
To backup your database, select ***Tools\Database Utilities\Backup Database*** in the main menu and then browse to a location to save your database.



iv. Compacting and Repairing a Database

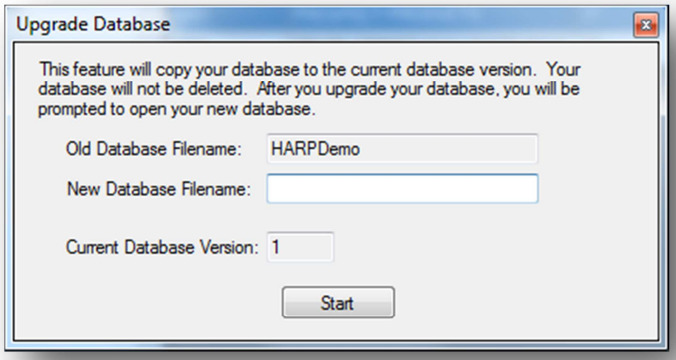
If the database becomes corrupted, you can attempt to repair the database by selecting ***Tools\Database Utilities\Compact and Repair Database*** in the main menu.

You can also use this feature if your database file size is huge. This can occur when large amounts of data are deleted or modified. This feature will attempt to compact the database to decrease the file size.



v. Upgrading a Database

HARP 2.x updates may require you to update your project or user database. To upgrade the database, select ***Tools\Database Utilities\Upgrade Database*** in the main menu.



Enter a new filename for your database and click ***Start***.

b. CEIDARS Utility Tables

The HARP EIM contains a copy of the CEIDARS Utility Tables. These tables are used to assist with data entry and generating reports. As updates to these tables occur, the HARP EIM will store the previous versions in case an older emission inventory needs to be compared. For a detailed description of these tables and fields, see the CEIDARS Data Dictionary at http://www.arb.ca.gov/app/emsinv/dist/doc/datadict.pdf.

c. Health Database

The health database contains pollutant health and pollutant specific (e.g., half-life) information. The health values listed in this database are approved for use in the Air Toxics "Hot Spots" Program for health risk assessments. For integrity purposes, this database is encrypted; however, the pollutant health information is available at http://www.arb.ca.gov/toxics/healthval/healthval.htm.

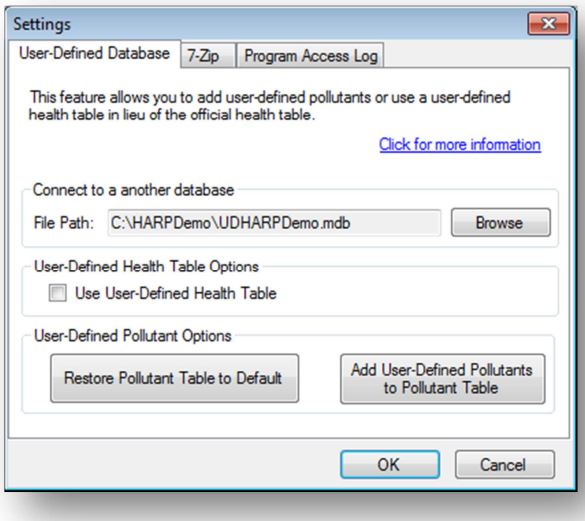
The HARP EIM uses this database only for facility prioritization. See Section 7.d for more information on prioritization.

d. User-Defined Database

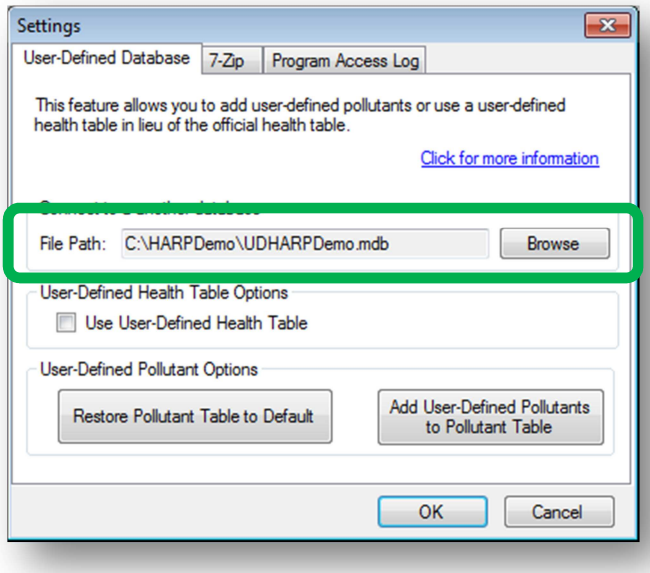
This feature is intended for advanced users or the reviewing authority (e.g., air district staff). This database allows you to use custom information in your project. This feature will allow you to add pollutants that are not part of the official list of pollutants in the CEIDARS Utility Database, custom health value information, and/or emission factors. In order to use this feature, you need to have Microsoft Access installed on your computer and extensive knowledge of the CEIDARS database structure and health risk assessment. The user-define database contains three blank tables. The tables include a pollutant table, health table, and an emission factor table. ARB will not maintain or be responsible for the content in these tables. If the user-defined database is used, the HARP EIM will document its use on all reports.

i. Connecting to a User-Defined Database

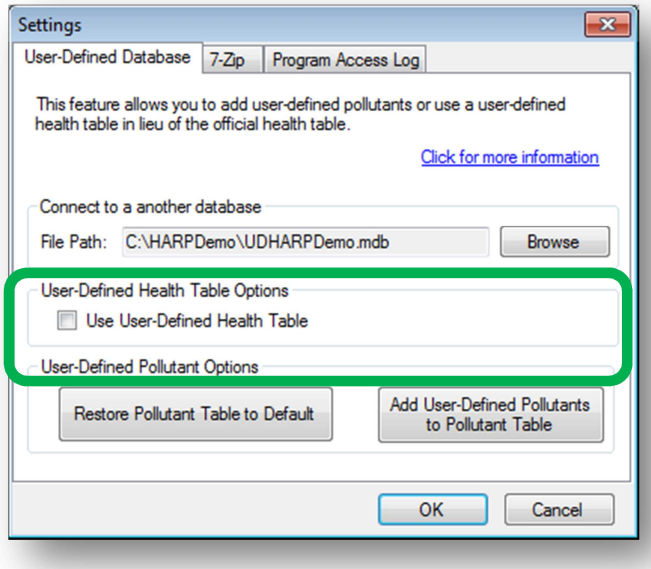
By default, a user-defined database is created and associated to your project when a project is first created. To view the current settings for the user-defined database, select ***Tools\Settings*** in the main menu and then click the ***User-Defined Database*** tab.



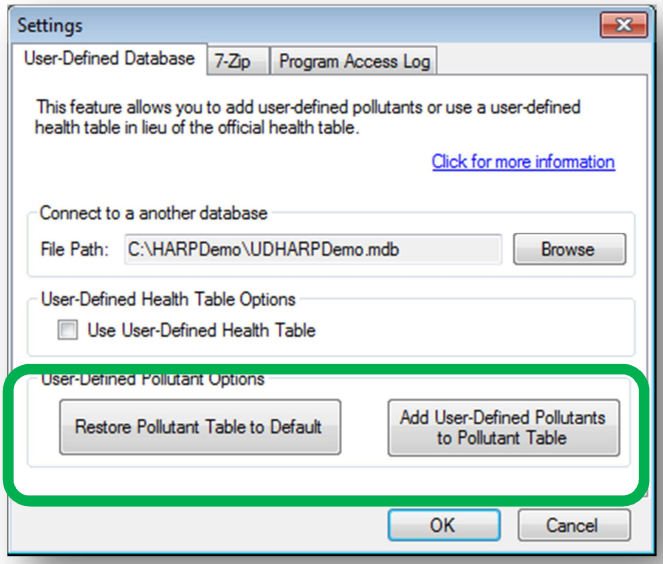
To connect to a different database, click ***Browse*** and select the database.



To use the user-defined health table, check ***Use User-Defined Health Table***.



To add your user-defined pollutants to the CEIDARS Utility Database, click ***Add User-Defined Pollutants to Pollutant Table***. This step must be repeated if the official pollutant table in the CEIDARS Utility Database is updated. To restore the pollutant table back to the default, click ***Restore Pollutant Table to Default***.



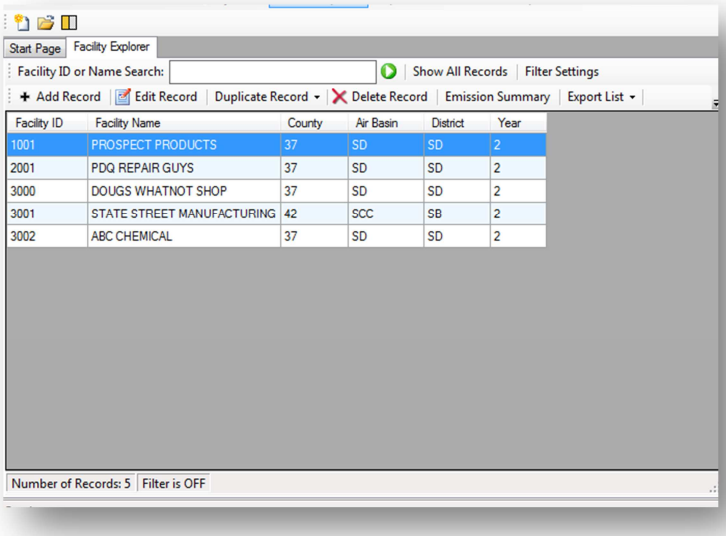
7. USING THE EXPLORER SCREENS

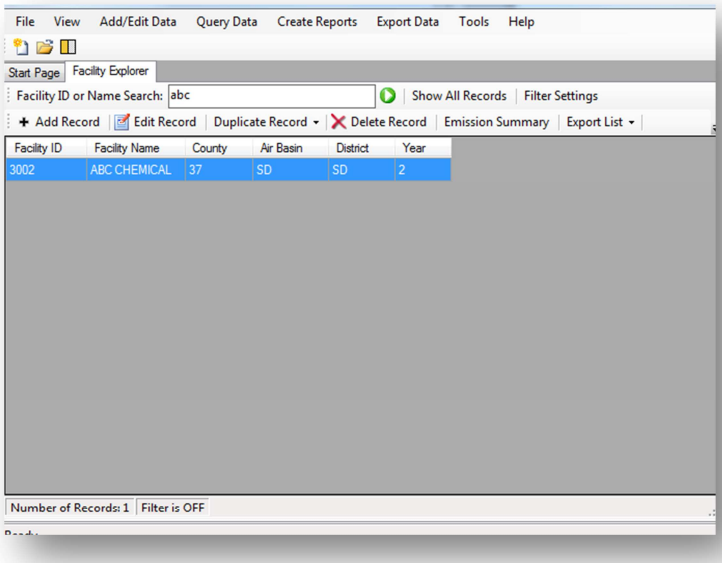
The explorer screens allow you to quickly view the facility, areawide source, and receptor data in your database. Each data type has its own screen. With these screens, data can be filtered, sorted, deleted, and duplicated. You can also search for a specific record. In addition, you can select a single or group of facilities or areawide sources and view the reported emissions. This section describes how to use the explorer screens.

To access an explorer screen, click ***Add/Edit Data*** in the main menu and select one of the data types (i.e., ***Facilities and Emission Data***, ***Areawide (Regional) Source Data***, or ***Receptor Data***). You can also double-click on one of the nodes under ***Data*** in the ***Project Panel***.

a. Searching for a Record

You can search for a facility by typing in its facility ID or name in the textbox. To reset the search and display all results, click ***Show All Records***.

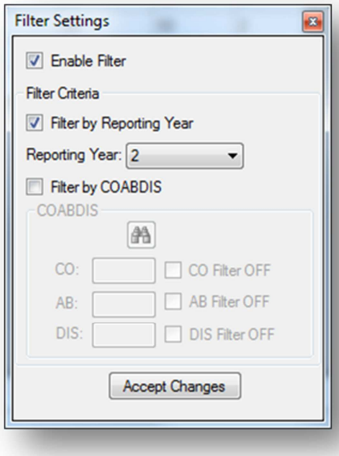




b. Filtering Records

The explorer screens can be filtered to show records by reporting year and/or by county, air basin, and air district. When the filter settings are applied the settings will be saved to the project. Filter settings will always be applied until it is manually turned off by the user.

To filter the data, click on ***Filter Settings***.

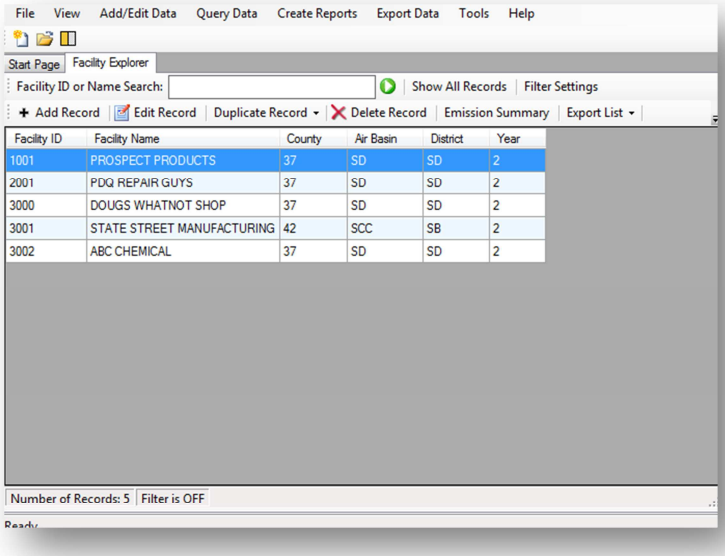


Enable the filter by checking ***Enable Filter*** and then select the filtering criteria.

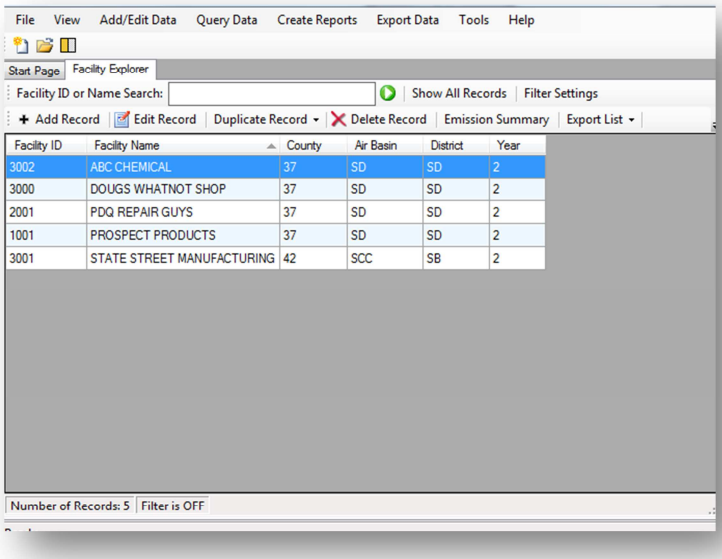
Click ***Accept Changes*** to apply the filter settings.

c. Sorting Records

To sort the data, click on any of the column headers.

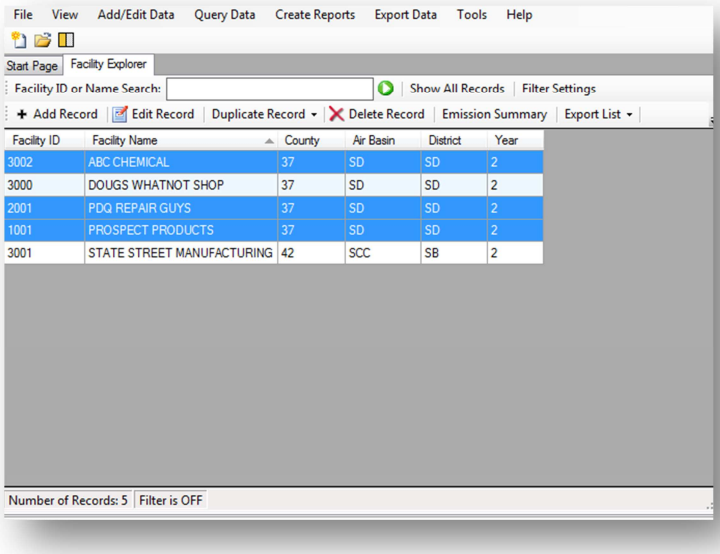


This screen shows that the facilities are now in alphabetical order.

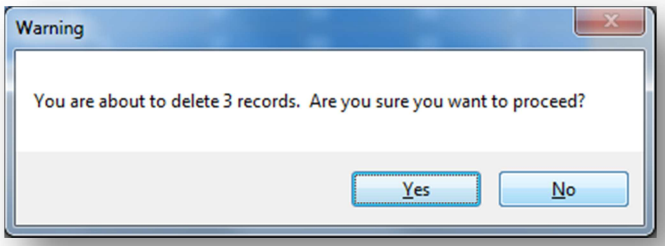


d. Deleting Records

To delete data, highlight the records you wish to delete.



Click ***Delete Record*** or push the ***Delete*** on the keyboard. You will be warned before the records are deleted.

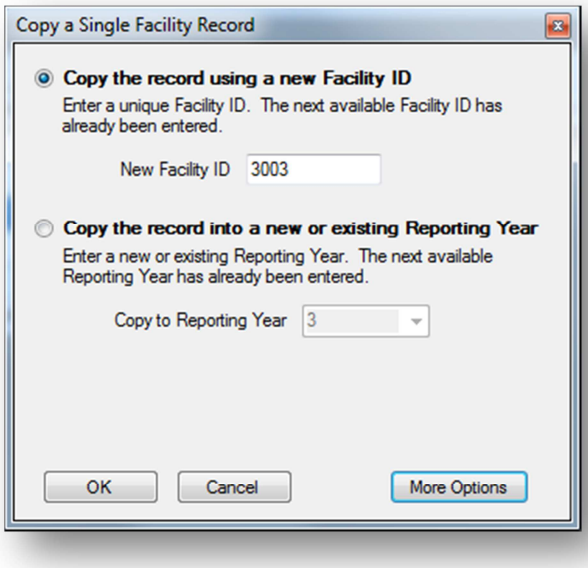


e. Duplicating Records

In the ***Facility Explorer***, there are two ways to duplicate records. You can copy a single facility or copy an entire reporting year. This section describes several ways to copy facility data. The steps are similar on all explorer screens.

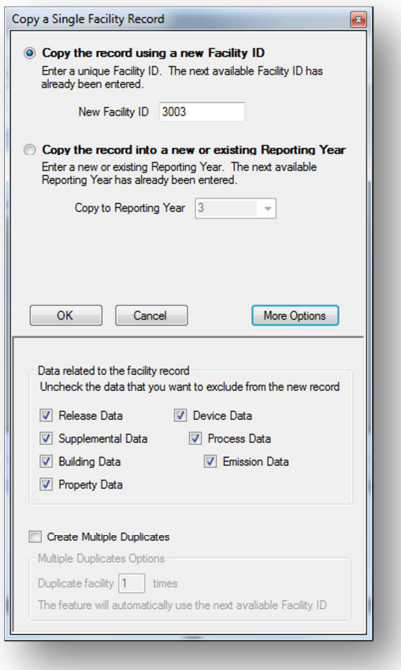
Copy a Single Facility Record

To copy a single facility, select the facility in the ***Facility Explorer*** and select ***Duplicate Record\Copy a Single Facility Record***.



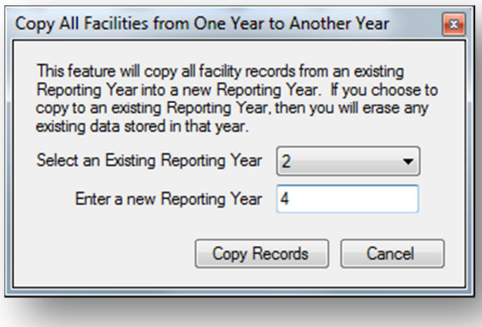
Select either to copy the record to the same reporting year using a new facility ID or copy the record into a new or existing reporting year.

For advance copy option, click ***More Options***. This will allow you to copy parts of the facility record or create multiple copies of the same facility record.



Copy all Facilities from One Year to Another Year

To copy all facilities from one reporting year to another, click ***Duplicate Record\Copy All Facilities from One Year to Another Year***.

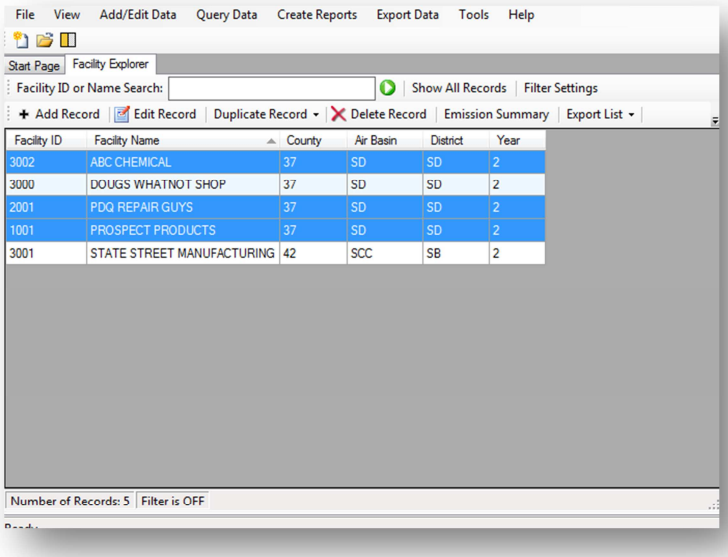


Select a reporting year to copy using the drop down box and then enter a new reporting year in the text box. Then click ***Copy Records*** to copy the records.

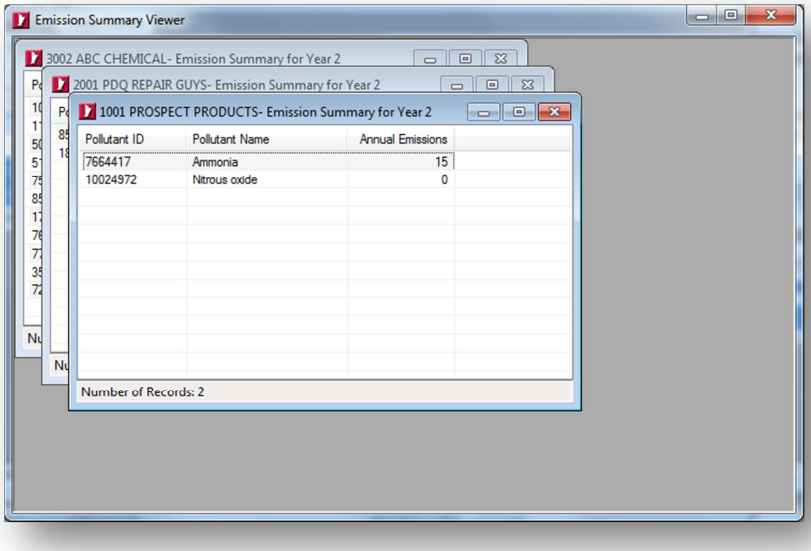
f. Emission Summary

The explorer screens for the facility and areawide source data contain a feature to allow you to quickly see an emission summary of any facilities or areawide sources in your database.

To see the emissions for a single or group of facilities or areawide sources, select the records of interest and then click ***Emission Summary***.



A new window will appear displaying an emission summary of the facilities you selected.

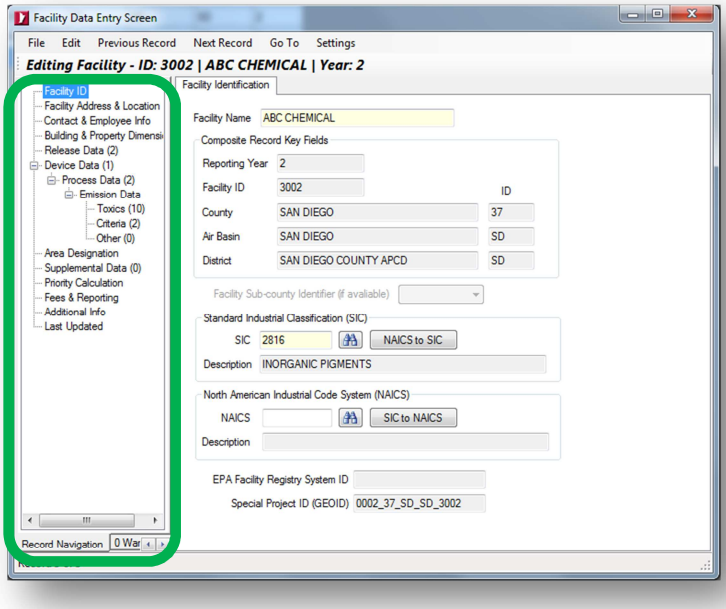


8. FACILITY DATA ENTRY SCREEN

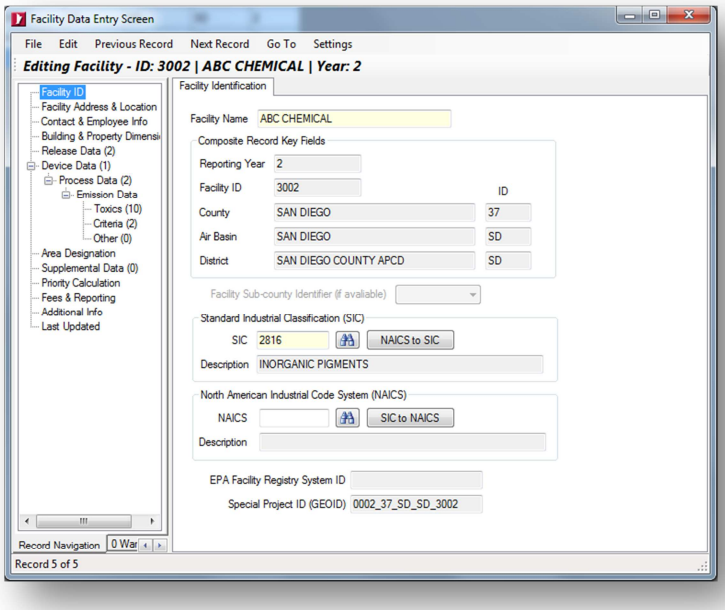
All facility data are edited in the ***Facility Data Entry Screen***. To access the ***Facility Data Entry Screen***, select ***Add/Edit Data\Facility and Emission Data***. This will open the ***Facility Explorer***. Click ***Edit*** in the ***Facility Explorer*** to open the ***Facility Data Entry Screen***. The ***Facility Data Entry Screen*** will be displayed as a separate window from the HARP EIM main screen. The remainder of this section further describes the user interface, data fields, and how to add data.

Record Navigation (Left Panel)

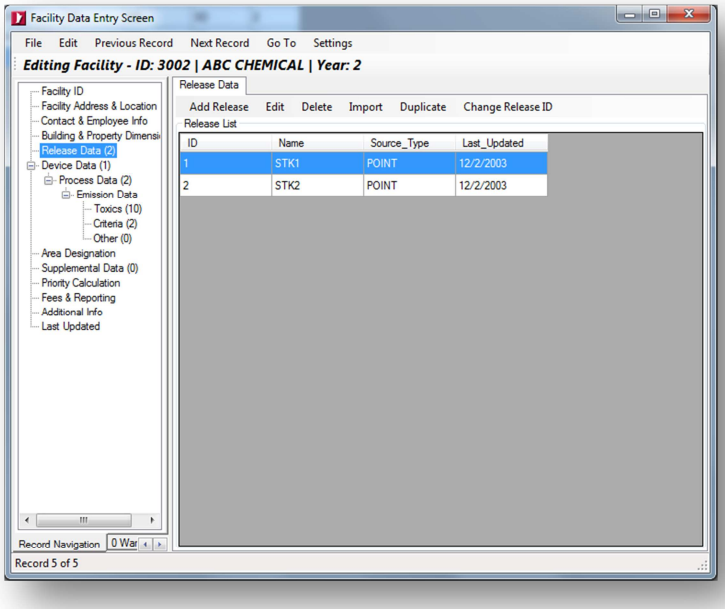
The data in the ***Facility Data Entry Screen*** are bound to the ***FACILITY***, ***BLG***, ***BLGPNT***, ***PROP***, ***PROPNT***, ***STACK***, ***DEVICE***, ***PROCESS***, ***EMISSION***, and ***S_UP*** tables in the user database. These tables are tied together for a specific facility using a unique ID consisting of a facility ID (FACID), inventory year (YEAR), and COABDIS (County, Air Basin, District). Since this relationship is complex, record navigation feature is available on the left panel of the screen. This panel allows you to easily navigate to different sections of a facility and emission record.



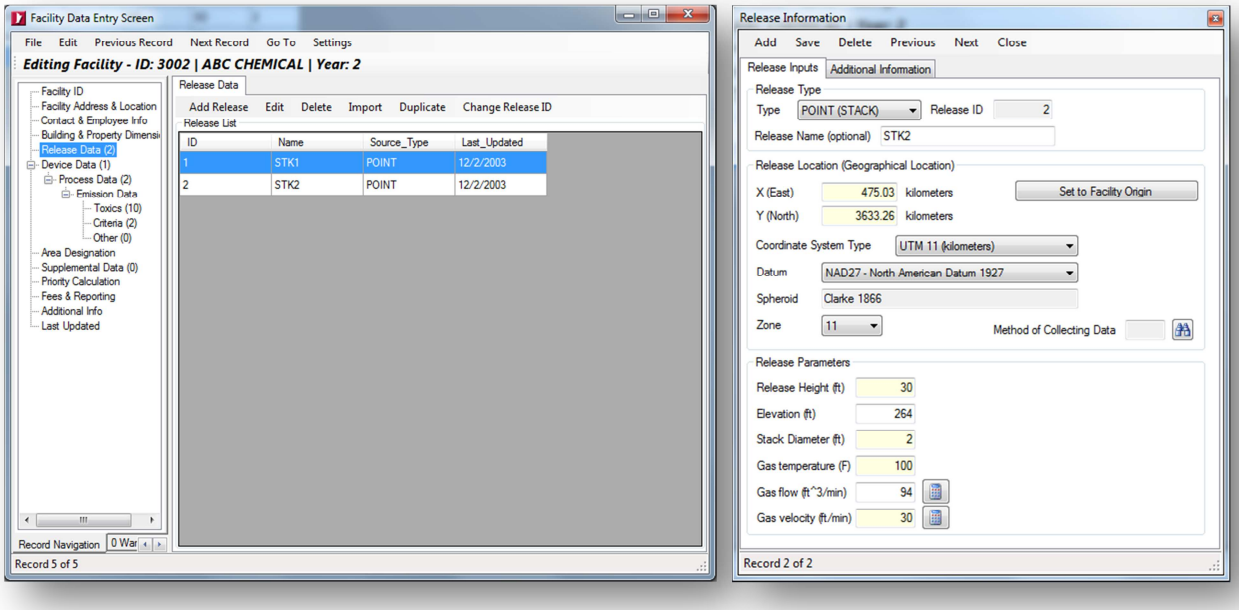
When a node is clicked on, the associated data fields are displayed in the right side of the screen.



When a node is clicked on for data that can contain multiple records (e.g., release data), the right panel will list the available records.



The individual records on the list can be accessed by either double-clicking on a specific record or selecting ***Edit***.



Facility Menu Descriptions

Name	Description
File\Add Facility	Adds a new facility record
File\Save Record	Saves the record
File\Import Facility Data\Import Tabular Data using an Excel File	Imports data from an Excel file. See Section 15.c for more information
File\Close	Closes the Facility Data Entry Screen
Edit\Delete Record	Deletes the current record
Edit\Change Facility Key Fields	Change facility primary key fields, e.g. year, FACID, CO/AB/DIS
Previous Record	Moves to the previous record
Next Record	Moves to the next record
Go To	Go to specific facility record
Settings	Sets default values to apply to new records

Facility Data Field Descriptions

The following is a description of the data fields on the facility editing windows.

Facility Name	The descriptive name of a facility. The name can be any alphanumeric string up to 60 characters long.
Facility ID	A positive integer ID, up-to nine digits which uniquely identifies each facility within a particular COABDIS. A facility ID must be specified at the time a facility is added to the database. After that it cannot be changed.

County Name	The name of a county containing each facility. The county name is taken automatically from the COABDIS table.
County ID	A positive integer ID, up-to two digits which uniquely identifies a county. A county ID must be specified when a facility is added to the database and must correspond to one of the counties in the COABDIS table.
Air Basin	A two- or three-character field that uniquely identifies an air basin. An air basin must be specified when a facility is added to the database and must correspond to one of the districts in the COABDIS table.
Air Basin Name	The name of the air basin containing a facility. An air basin must be specified when a facility is added to the database. The air basin name is taken automatically from the COABDIS table.
District	A two- or three-character field that uniquely identifies a district. A district must be specified when a facility is added to the database and must correspond to one of the districts in the COABDIS table.
District Name	The name of a district containing each facility. The district name is taken automatically from the COABDIS table.
Address	Street address where facility is located.
City	City where facility is located.
Zip	Facility Zip code.
Zip Ext.	Facility Zip code extension.
Area Code	Facility telephone area code.
Toxic Program Status	Fee category – this field indicates which category a facility is under. Click on the down arrow to see a list of toxic program status for the facility.
Year of Emission Data	Year in which emissions were estimated.
Year of Risk Data	Year in which risk data were estimated.
Updating Code	Code indicating HARP emissions were updated. Click on the down arrow to see a list of updating codes.
CERR	Consolidated Emissions Reporting Rule. Code indicating which type of the CERR program a facility is classified.
Forecasting	This field is used to indicate whether a facility is used for forecasting purposes. A value of N indicates that this is an NSR facility. Press the button labeled ***Forecasting*** to change the value of this field.
CHAPIS	A check in this field indicates the facility is a CHAPIS facility.
Small Commercial	A check in this field indicates the facility is a small commercial facility.
Maintained by Districts	A check in this field indicates the facility is agreed to be maintained by districts.
Location only	A check in this field indicates this facility only update its location only.
SIC	Source Industrial Code. This is the main activity of the facility.
NAICS	North American Industrial Classification Code. This code will eventually replace the SIC.
Location – East	X_USERCOORD: East to West coordinate provided by the facility.
Location – North	Y_USERCOORD: North to South coordinate provided by the facility.

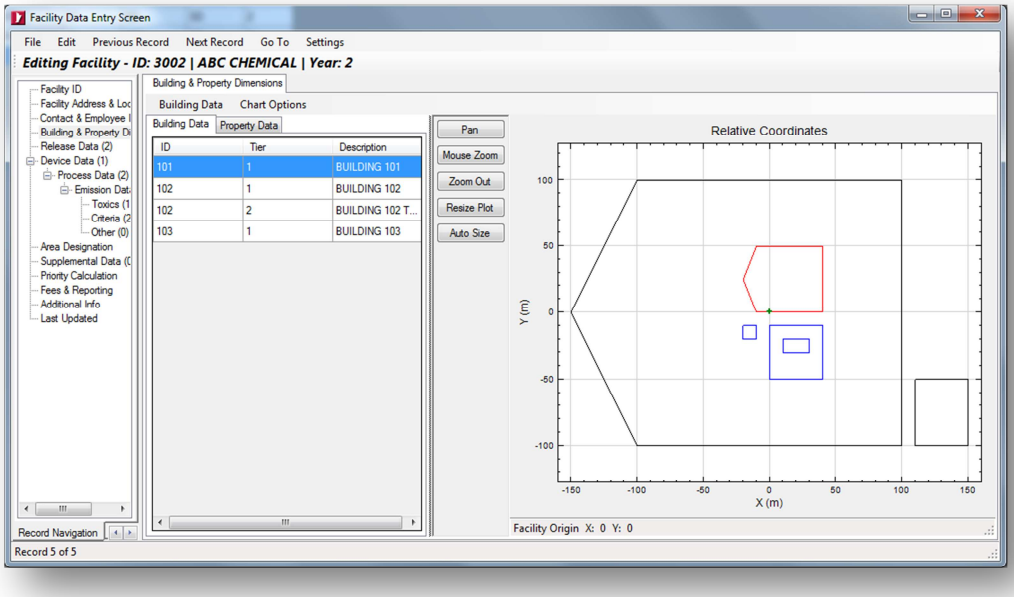
Coord_system	Coordinate system used. The coordinate system should be specified to define coordinates.
Datum	Datum used. The datum should be specified to define coordinates.
Spheroid	Shape used for ellipsoidal earth. The spheroid should be specified to define coordinates.
Person	Name of the phone contact person for each facility.
Area Code	Three-digit area code phone number.
Phone	Seven-digit facility phone number.
# Employees	Number of employees at the facility.
AIRS AQCR	Air Quality Control Region
Co. Name	Company name. This can be either the parent company of the facility or the facility itself.
Address (Mailing)	Street-mailing address of a facility. If the mailing address is the same as the facility address, it can be copied from the facility address on the facility-editing window by pressing the button labeled ***Copy Facility Address***.
City (Mailing)	City where facility is located for mailing purposes. If the mailing address is the same as the facility address, it can be copied from the facility address on the facility-editing window by pressing the button labeled ***Copy Facility Address***.
Attention	Facility contact person for mailing purposes. If the mailing address is the same as the facility address, it can be copied from the facility address on the facility-editing window by pressing the button labeled ***Copy Facility Address***.
FRS_ID	Facility Registry System ID. This field is uniquely assigned by the federal EPA for each facility and is used across different media such as municipal waste and water pollution.
Special Project ID	GEOID for ARB used only.
SO2 Designation	Area designation for S02. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled ***S02 Designation*** to select an allowable value from a list.
PM Designation	Area designation for particulates. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled ***PM Designation*** to select an allowable value from a list.
OZ Designation	Area designation for Ozone. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled ***OZ Designation*** to select an allowable value from a list.
NO2 Designation	Area designation for N02. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled ***N02 Designation*** to select an allowable value from a list.
CO Designation	Area designation for CO. Allowable values are: A (attainment), N (non-attainment), T (non-attainment, transitional), U (unclassified). Press the button labeled ***CO Designation*** to select an allowable value from a list.
Subco. ID	Facility sub-county identifier. If this is entered, it must correspond to one of the subcounty codes in the SUBCO table. You may select a value from a list by pressing the button labeled ***Subco. ID***.
Rec. Proximity	This is the distance from the facility to the nearest receptor for the purpose of calculating facility priority score. You may enter a value directly into the box of

	the facility-editing window or press the button labeled ***Rec. Proximity*** to have HARP calculate it. Calculation of receptor proximity requires that you have already entered facility stack data and property boundary data.
Priority Multiplier	A factor that is used to adjust the prioritization score at a facility. This could be used to increase a facility score if a facility, for example, emits multipathway pollutants or has receptors that are closer than 50 meters.
District FACD1	Reserved for district use.
District FACD2	Reserved for district use.
Toxic Program Phase	Phase at which a facility was brought into HARP. Must be one of the following: P1 (first phase, >=25 TPY), P2 (second phase, >= 10 TPY and <25 TPY; P3 (third phase, <10 TPY). Click the down arrow to view and then choose the correct toxic program phase for the facility.
Industry Wide	This field indicates whether a facility is included in the industry-wide emissions data. Allowable values are: Y (included in industry-wide) and N (not included in industry wide).
Priority for Risk	This field indicates the priority of a facility for risk assessment. Allowable values are: H (high priority), L (low priority) or I (intermediate priority). Press the button labeled ***Priority for Risk*** to change the value of this field.
Exemption Status	Reason for facility to be exempted from the Air Toxics Hot Spots program.
Small Business	Indicates whether facility is a small business.
Year of Prioritization	Indicates the reporting year when the prioritization score was estimated.
Number of SCC used	Indicates the number of SCC used at the facility. This field is used to classify a facility for fee purpose.
HRA Cancer	Health Risk Assessment, cancer potency number calculated for the facility.
Chronic HI	Chronic hazardous index (HRA) score calculated for the facility.
Acute HI	Acute hazardous index (HRA) score calculated for the facility.
Last Update	The data when this record was last modified. For facility records, this field is updated whenever any subordinate record is updated. Subordinate records are devices, processes, emissions or stacks that belong to the facility.

a. Building & Property Dimensions

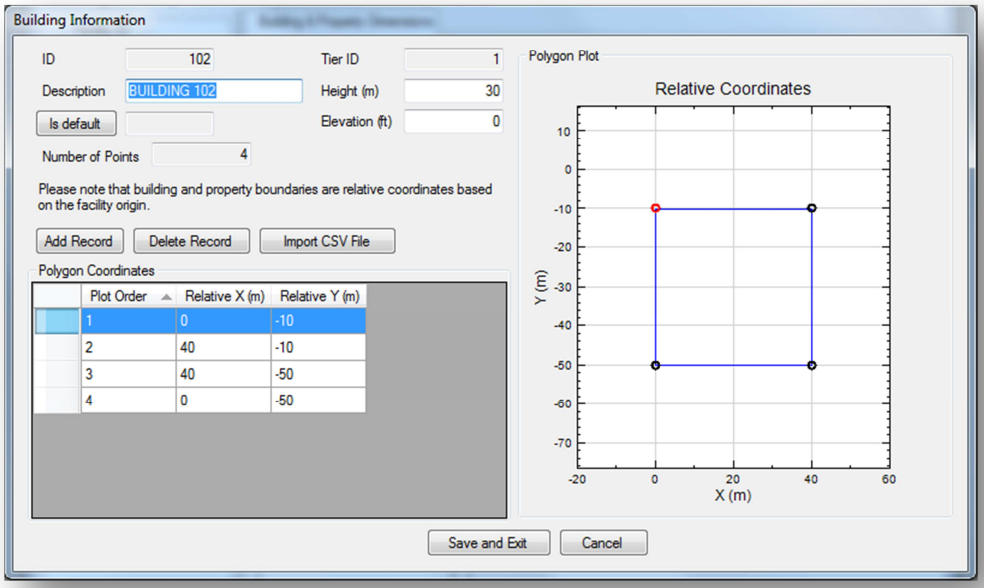
Building and property dimensions are necessary for air dispersion analysis, facility prioritization, and health risk assessment. This data is entered relative to the facility origin. When building and property data are entered, the data is displayed graphically in the ***Facility Data Entry Screen***.

To access building or property data for a facility, click the ***Building & Property Dimensions*** node in the left panel.



To access the full building or property record, double-click on a record.

Note: There is a limitation for the buildings' tier level: when entering building information to the program, all buildings' tier level must start with the same number (e.g. 1).



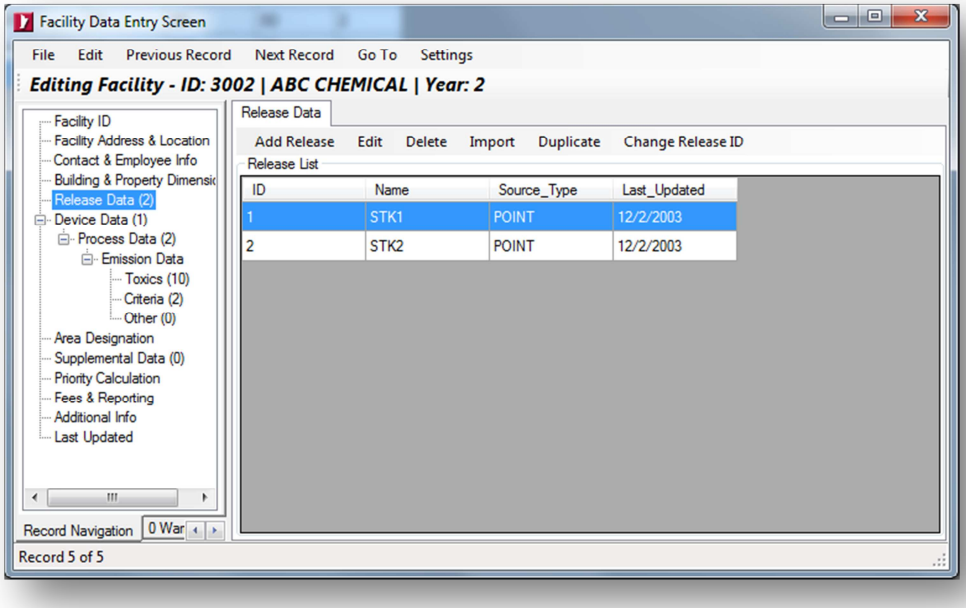
Menu Descriptions

Name	Description
Building Data\Add Building	Adds a new building
Building Data\Delete	Deletes the selected building
Building Data\Edit	Edit the selected building
Property Data\Add Property	Adds a new property
Property Data\Delete	Deletes the selected property
Property Data\Edit	Edit the selected property
Chart Options\Show Coordinates in UTM WGS84	Toogles between UTM or relative coordinates on the chart
Chart Options\Show Building Data	Shows or hides building data on the chart
Chart Options\Show Facility Origin	Shows or hides the facility origin on the chart
Chart Options\Show Property Data	Shows or hides property data on the chart
Chart Options\Show Labels	Shows or hides building and property names on the chart
Chart Options\Print Chart	Prints the chart
Export to a KML file	Exports the chart to a KML file
Pan	Pan the chart using the mouse
Mouse Zoom	Zoom into a selected area using the mouse
Zoom Out	Zoom out of the chart
Resize Plot	Drag the x or y axis to resize the chart
Auto size	Automatically resizes the map
Import CSV File	Import a CSV file of Lat\Lon coordinates in WGS 84

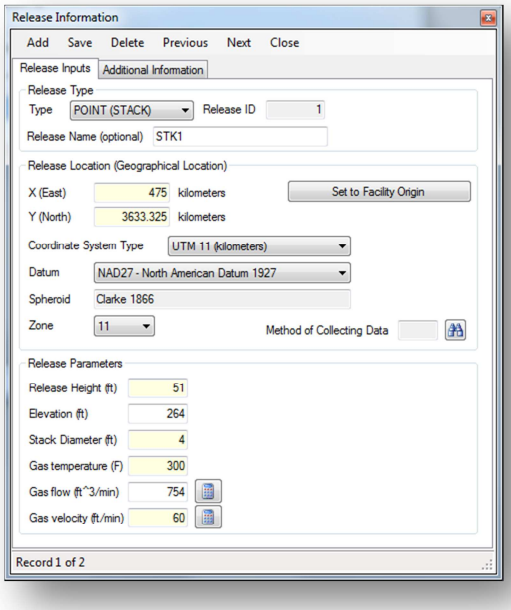
b. Release Data

A release is where the emissions are released into the atmosphere. The release is also defined as an emission release point; therefore, every process must have an associated release, whether it is a point, area or volume source, or an open pit. You need to assign a ***Release ID*** and associate it with every process within your facility. Depending on the release type, the associated release parameters should be provided. The following section describes the menu options and data fields for the release window.

The release data are stored in the ***STACK*** table of the user database. To access the release data for a facility, click the ***Release Data*** node in the left panel of the ***Facility Data Entry Screen***. The ***Facility Data Entry Screen*** will display a list of releases that are tied to the facility. This list may be sorted by clicking on a column.



To access the full release record, double-click on a record or highlight a record on the list and select ***Edit***.



Menu Descriptions

Name	Description
Add Release	Adds a new record
Edit	Edit the selected record
Delete	Deletes the selected record
Import\Import Tabular Data using an Excel File	Imports data from an Excel file. See Section 15.c for more information
Duplicate	Duplicates the selected record
Change Release ID	Changes the release ID

Field Descriptions

The following is a description of the data fields in the release window.

Certain parameters listed below are specific to the type of release point. For example, temperature and velocity only apply to point sources. Only the input variables that apply to the selected release type are shown on the window.

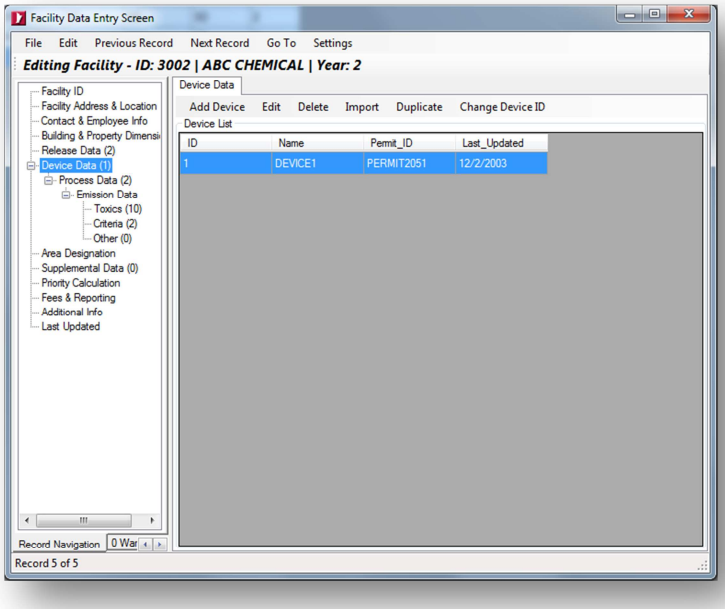
Stack Name	The descriptive name of a stack. This may be any string up to 60 characters.
Elevation	Elevation of the base of a stack in feet – distance above sea level.
Release Height	Stack height in feet, from the base of the stack.
Stack Diam	Stack diameter at exit in feet.
Temperature	Actual gas temperature as exit in degrees F. Must be a number between 50 and 2,500.
Rate	Actual gas flow rate in cubic feet per minute (CFM).
Calculate Rate	When you press this button, HARP calculates and displays the gas

(button)	flow rate from the velocity and stack diameter.
Calculate Velocity (button)	When you press this button, HARP calculates and displays the gas exit velocity from the flow rate and stack diameter.
Velocity	Actual gas velocity at exit in ft/min.
East	East to West coordinate of the stack.
North	North to South coordinate of the stack
Release Type	Type of release: point, volume, area, or open pit.
Width of vol. Source (Lateral Dimension)	Corresponds to the parameter SYINIT for a volume source. Refer to the ISC documentation, Volume II.5, Table 1-6. Note: In HARP, the user must divide the width of the volume source by the appropriate factor (e.g., 4.3), and then enter the quotient into HARP.
Height of vol/area source (Vertical Dimension)	Corresponds to the parameter SZINIT for an area source. Refer to the ISC documentation, Volume II.5, Table 1-6. Note: In HARP, the user must divide the height of the source by the appropriate factor (e.g., 2.15), and then enter the quotient into HARP.
X width of area/pit source	Corresponds to the parameter XINIT for an area or open pit source. Refer to the ISC documentation.
Y width of area/pit source	Corresponds to the parameter YINIT for an area or open pit source. Refer to the ISC documentation.
Angle of area/pit source	Corresponds to the parameter ANGLE for an area or open pit source. Refer to the ISC documentation.
Volume of open pit	Volume of an open pit source. Refer to the ISC documentation.
IsDefault	Are any values in the stack data defaulted?
Last Update	Date any stack data are updated.

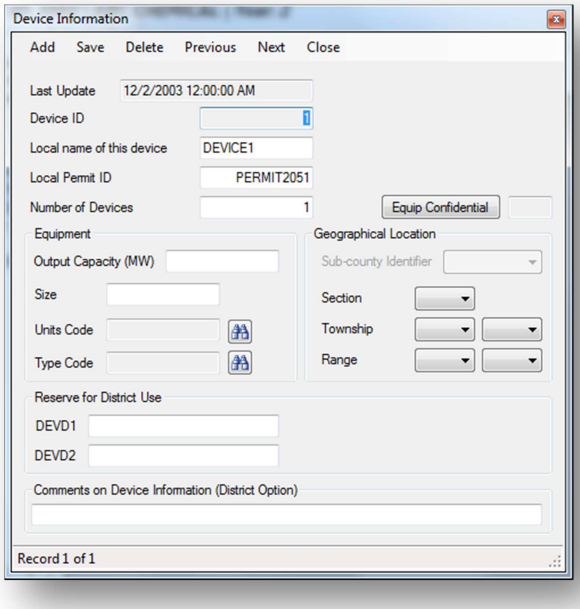
c. Device Data

A device is a piece of equipment used in any process, such as a boiler used in a distillate oil combustion process or a paint booth used in a painting process. A facility can have many devices, each identified by a positive integer, up to six digits. A device can have up to 99 processes, each identified by a process ID (PROID). For example, a boiler can burn distillate oil at one time and residual oil at another time. Therefore, one process can be classified as a distillate oil combustion process while another is a residual oil combustion process. The following section describes the menu options data fields for the device window.

The device data are stored in the ***DEVICE*** table of the user database. To access device data for a facility, click the ***Device Data*** node in the left panel of the ***Facility Data Entry Screen***. The ***Facility Data Entry Screen*** will display a list of devices that are tied to the facility. This list may be sorted by clicking on a column.



To access the complete device record, double-click on a record or highlight a record on the list and select ***Edit***.



Menu Descriptions

Name	Description
Add Device	Adds a new record
Edit	Edit the selected record
Delete	Deletes the selected record
Import\Import Tabular Data using an Excel File	Imports data from an Excel file. See Section 14.c for more information
Duplicate	Duplicates the selected record
Change Device ID	Changes the Device ID

Field Descriptions

When you add a new device or edit an existing device record, the names and IDs of the facility, county, air basin, and district are automatically set to the same values as the facility that contains that device. The following is a description of the other data fields on the device-editing window.

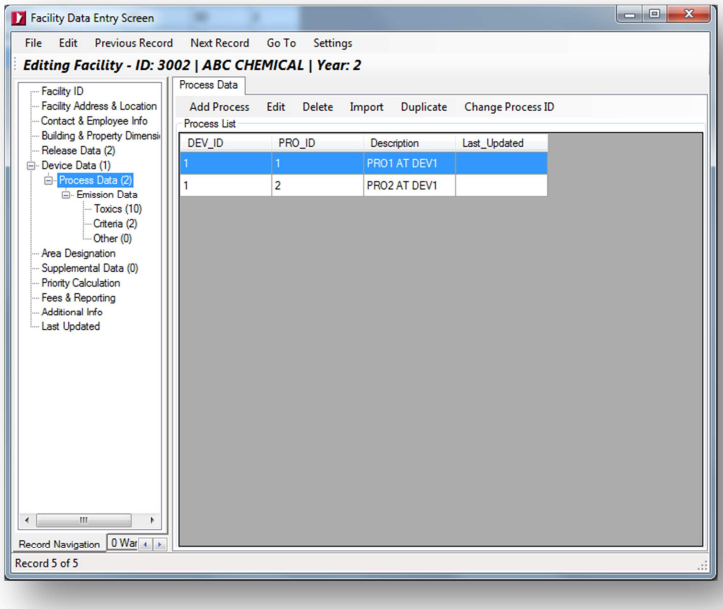
Device Name	The descriptive name of a device. The name can be any alphanumeric string up to 40 characters long.
Device ID	A positive integer ID (up-to-six digits) which uniquely identifies each device within a particular facility and COABDIS. A device ID must be specified at the time a device is added to the database. After that it cannot be changed.
Permit ID	Local permit ID.
No. Devices	Number of devices represented by this record. If there are exactly the same types of devices at the facility, write the number of devices here and aggregate processes and emissions for these devices.
Section	Section location of this device. Must be an integer number from 1 to 36.
Township	Township location of this device. Must be an integer number from 1 to 50
Township Base	Township base. Must be one of the following values: N (north), S (south). Press the button labeled ***Township Base*** to change the value of this field.
Range	Range location of this device. Must be an integer number from 1 to 50
Range Base	Range location base for this device. Must be one of the following values: E (east), W (west).
Subcounty ID	Device subcounty identifier. If this is entered, it must correspond to one of the subcounty codes in the SUBCO table. You may select a value from a list by pressing the button labeled ***Subcounty ID***.
DEVD1	An alphanumeric field of up to forty characters, reserved for district use.
DEVD2	An alphanumeric field of up to forty characters, reserved for district use.
Equipment Size	A numerical value of the equipment size ranging from 0 to 999999.9. The units of measurement depend on the value of Equip. Size Units.
Equip. Size Units	Equipment size units code. This is an integer number that must be taken from the EQSIZEUNIT table. This field is to be used in the future. It is recommended that this field be left blank for the time being.

Equipment Type	Equipment type code. This is an integer number that must be taken from the EQTYPE table. This field is to be used in the future. It is recommended that this field be left blank for the time being.
Eq. Size Confid.	Equipment size confidential flag. Allowable values for this field are: Y (equipment size is confidential), N (equipment size is not confidential).
Output Capacity	Device output capacity in megawatts. Any number up to 9999.99 is valid. This field is designed to store a device output capacity at any power plant.

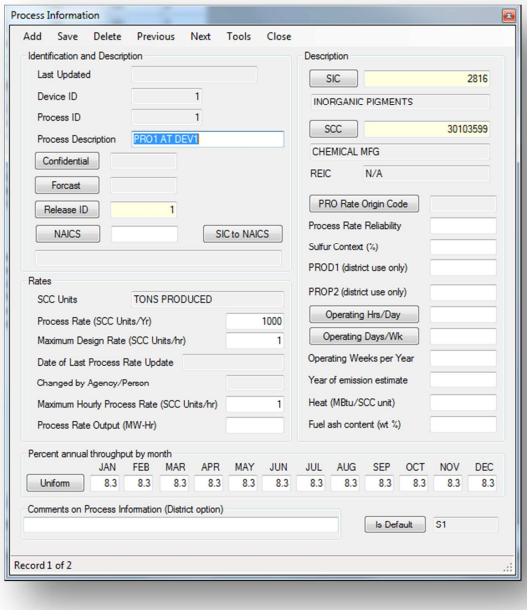
d. Process Data

A process can be defined as an activity at the device or equipment. For example, an activity can be an incineration, soldering, painting, or plating process. The HARP EIM identifies processes using PROID. As mentioned in section 8.c, a device can have as many as 99 processes, each identified by a PROID. The following section describes the menu options and data fields for the process window.

Process data are stored in the ***PROCESS*** table of the user database. To access the process data for a facility, click the ***Process Data*** node in the left panel of the ***Facility Data Entry Screen***. The ***Facility Data Entry Screen*** will display a list of processes that are tied to the facility. This list may be sorted by clicking on a column.



To access the complete process record, double-click on a record or highlight a record on the list and select ***Edit***.



Menu Descriptions

Name	Description
Add Process	Adds a new record
Edit	Edit the selected record
Delete	Deletes the selected record
Import\Import Tabular Data using an Excel File	Imports data from an Excel file. See Section 15.c for more information
Duplicate	Duplicates the selected record
Change Process ID	Changes the Process ID

Process Data Field Descriptions

When you add a new process or edit an existing process record, the names and IDs of the facility, county, air basin, district, and device are automatically set to the same values as the device that contains that process. The following is a description of the other data fields on the process window.

Process Name	The descriptive name of a process. The name can be any alphanumeric string up to 60 characters long.
Process ID	A positive integer ID, up to two digits, which uniquely identifies each process within a particular facility, device and COABDIS. A process ID must be specified at the time a process is added to the database. After that it cannot be changed.
Confidential	This flag field identifies whether the process is confidential. Allowable values for this field are: Y (process data is confidential), N (process data is not confidential). A “Y” on this field signifies that other related data such as emission factor and design rate are confidential and will not be released outside of the Air Resources Board.

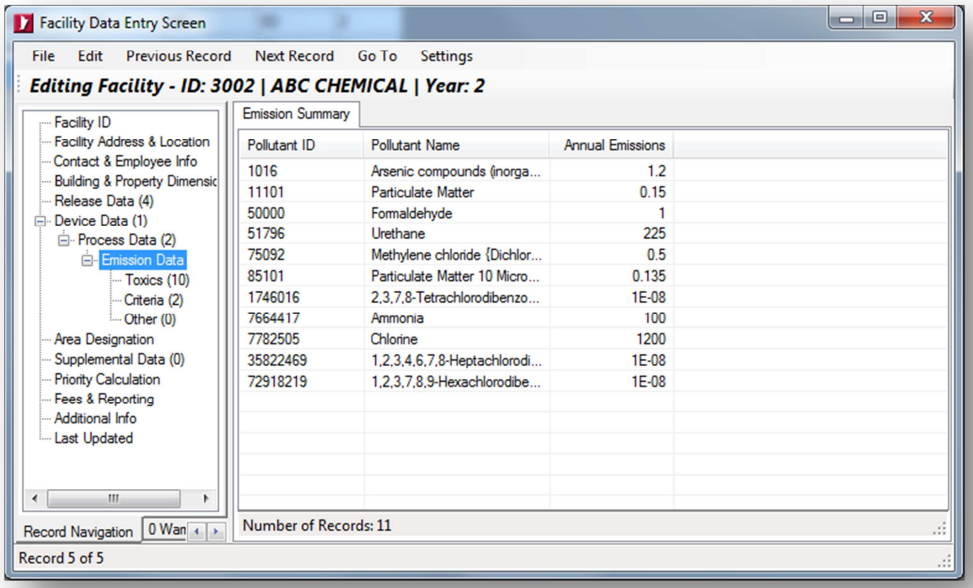
Forecast	Process specific forecast indicator. Domain for this field is N for new source review (NSR) and null. An "N" indicates that the process is a NSR process related for forecasting purpose.
Stack	The ID of the stack to which this process is physically connected. The ID must correspond to one of the stacks already defined for the facility. Press the button labeled ***Stack*** to select from a list of valid stacks. ***It is important that each process be associated with a stack. If you do not enter a stack ID in this field, we will assume that this is a fugitive source and will assign an associated stack ID for it***.
SCC Units	SCC units are automatically set when the SCC is chosen. This field is taken directly from an SCC table and the user does not need to enter it.
Process Rate	This is the process rate in SCC units. If this field is entered, along with the emission factor, annual emissions for the process will be calculated.
Max Design Rate	Maximum design rate.
Date Process Rate Last Changed	Date on which the process rate field in the database was last changed. This is automatically updated by HARP.
Changed by Agency/Person	The person who last changed the process rate in the database. This is automatically updated by HARP using the initials that you enter when you log onto the system.
Unreconciled Process Rate	Unreconciled areawide source process rate. This only applies to areawide sources.
Max. Hourly Process Rate	Maximum hourly process rate in SCC units per hour. The greatest operating rate that would be expected for the source in a one-hour period.
SIC	This is the standard industrial classification code that best describes the industrial activity at the process level. Press the button labeled SIC to select from a list of valid codes. ***This is a "not null" (required) field in HARP and therefore must be entered by the user.***
SCC	This is the process source classification code (SCC) which closely corresponds to a process. Press the button labeled SCC to select from a list of valid codes. ***This is also a "not null" (required) field in HARP and therefore must be entered by the user.***
EIC Code	This field is an Emission Inventory Code (EIC) for areawide sources. HARP generates this Code when a process ID is chosen. Areawide sources should already have been populated with previous emission inventory data. You cannot add an areawide source category. Contact the ARB for assistance if you need to create an EIC.
EICSUMN	This field describes the summary of the areawide source for the EIC and is computer generated.
EICSOUN	This field describes the source of the areawide source for the EIC and is computer generated.
EICMATN	This field describes the material used in the EIC and is computer generated.
REIC	This is the reconciled EIC code used by the ARB to reconciled emissions between areawide and point sources. If the entered SIC/SCC combination is valid, a REIC will display. If it is not and you strongly believe it is a valid combination, the ARB will assign a valid code for it. This code is displayed from the ***category*** table for your information.
Process Rate	This field is to be used in the future.

Origin Code	
Process Rate Reliability	Process rate reliability. This must be an integer number of no more than 3 digits.
Sulfur Content	Fuel sulfur content expressed as a percentage and is only applicable to liquid fuel such as distillate or residual oils. This field must be between 0.0 and 3.0.
Spatial Distribution Parameter	This field is numerical spatial distribution parameter and is applied only to areawide sources.
PROD1	This is an alphanumeric field of up-to-forty characters reserved for district use.
PROD2	This is an alphanumeric field of up-to-forty characters reserved for district use.
Operating Hrs/Day	Code used to specify number of operating hours per day. Press the button labeled ***Operating Hrs/Day*** to select from a list of valid codes.
Operating Days/Wk	Code used to specify number of operating days per week. Press the button labeled ***Operating Days/Wk*** to select from a list of valid codes.
Operating weeks per year	Number of operating weeks per year.
Agency Making Areawide Source Estimate	This is an alphanumeric field of up to six characters identified the name of the agency making the areawide source estimate and is applied to areawide sources only.
Year of Emission Estimate	Year in which the process/emission estimate was made. Must be between 1980 and the current year.

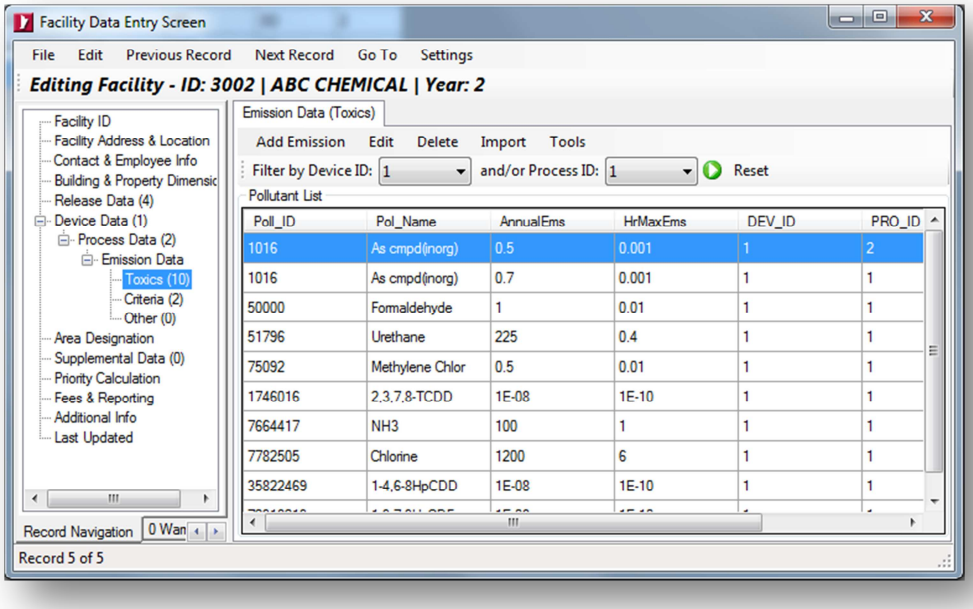
e. Emission Data

For clarity purposes, toxics and criteria pollutants are now displayed separately in the HARP EIM. To address pollutants that do not meet the toxics or criteria definition, a new pollutant category called “other” has been added. “Other” pollutants consist of non-regulatory pollutants, greenhouse gases, and user-defined pollutants. The following section describes the menu options and data fields for the emission data window.

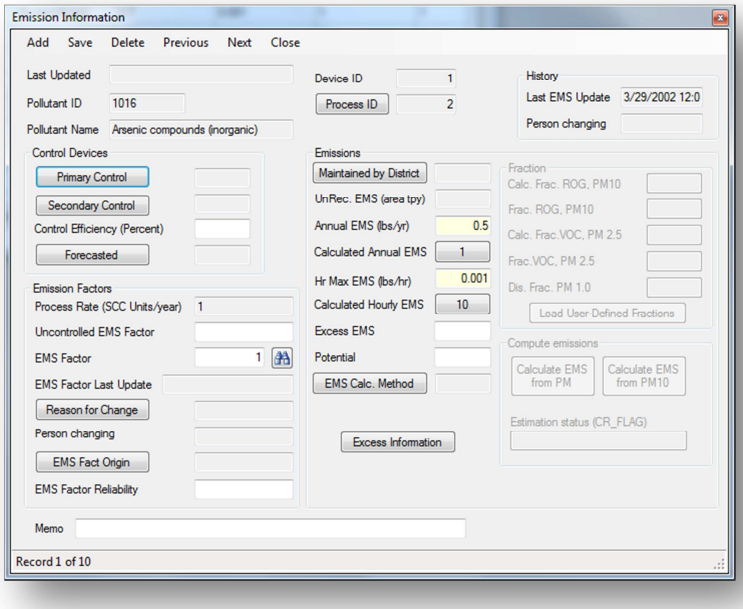
Emission data are stored in the ***EMISSION*** table of the user database. To access a summary emission data for a facility, click the ***Emission Data*** node in the left panel of the ***Facility Data Entry Screen***.



When the ***Toxics***, ***Criteria***, or ***Other*** nodes are clicked, the ***Facility Data Entry Screen*** displays a list of emissions that are tied to the facility. The list can be sorted by column and filtered by device and/or process ID.



To access the complete emission record, double-click on a record or highlight a record on the list and select ***Edit***.



Menu Descriptions

Name	Description
Add Emission	Adds a new record
Edit	Edit the selected record
Delete	Deletes the selected record
Import\Import Tabular Data using an Excel File	Imports data from an Excel file. See Section 15.c for more information
Tools\Unlock Emission Cells for Editing	Unlocks the cells for editing
Tools\Save Edited Emissions Cells	Saves the changes back to the database

Field Descriptions

When you add a new emission record or edit an existing emission record, the names and IDs of the facility, county, air basin, district, device, and process are automatically set to the same values as the process that contains those emissions. The following is a description of the other data fields on the emission windows.

Pollutant Name	The name of the pollutant being emitted. HARP fills this in automatically so that it corresponds to the pollutant ID on the emission-editing window.
Pollutant ID	An ID that uniquely identifies each emitted pollutant within a particular facility, device, process and COABDIS. A pollutant ID must be specified at the time an emission record is added to the database. After that it cannot be changed. The pollutant ID must correspond to one of the pollutants in the POLLUTANT table.
Cal. Frac ROG/PM10	This is a specified ROG or PM_{10} fraction from the provided TOG, ROG, PM, and PM_{10} emissions. This field is grayed out and is for information only. If the district does not provide ROG or PM_{10} emissions records, HARP will automatically calculate these emissions using ARB default fractions. In this

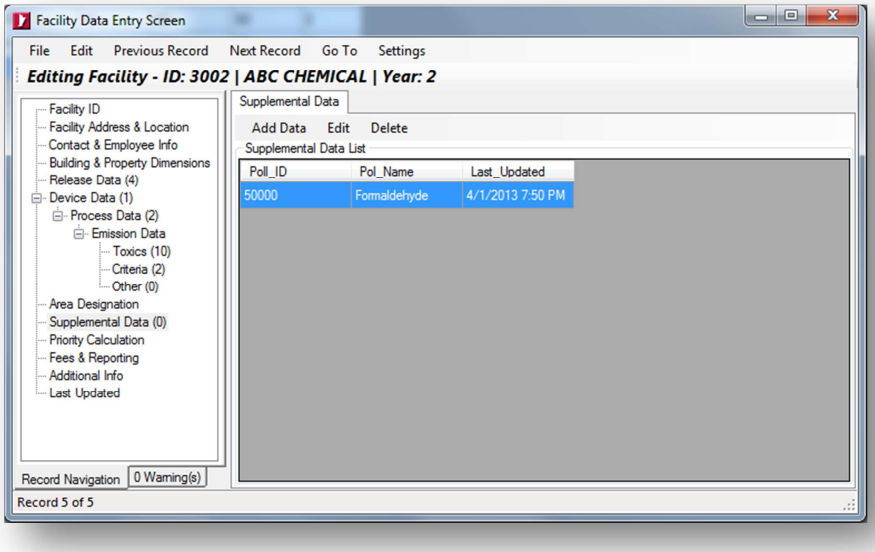
	case, the “Cal. Frac. ROG/PM10” and the “Fraction ROG/PM10” will be the same.
Fraction ROG/PM10	ARB default fraction for ROG or PM_{10} or NOx. HARP fills this in automatically from the fraction table.
Cal. Frac. VOC/PM 2.5	This is a specified VOC or $PM_{2.5}$ fraction from the provided TOG, VOC, PM, or $PM_{2.5}$ emissions. This field is grayed out and is for information only. If the district does not provide VOC or $PM_{2.5}$ emissions records, HARP will automatically calculate these emissions using ARB default fractions. In this case, the “Cal. Frac. ROG/PM10” and the “Fraction ROG/PM10” will be the same.
Fraction VOC/PM 2.5	ARB default fraction of VOC or $PM_{2.5}$. This number is for information only.
Primary Control	Primary pollutant control device code. This must be a number taken from the CNTLDEV table. Press the button labeled Primary Control to select from a list of valid codes.
Secondary Control	Secondary pollutant control device code. This must be a number taken from the CNTLDEV table. Press the button labeled Primary Control to select from a list of valid codes.
Efficiency	Control efficiency expressed as a percentage. This field must be a number between 0.0 and 100.0.
Forecasted	Pollutant specific forecast indicator. This may be left blank or set to R to indicate that this is a South Coast AQMD “reclaim” pollutant. Press the button labeled ***Forecast*** to change the value of this field.
UnRec. EMS	This field is for unreconciled areawide emissions and is applied to areawide sources only. If the unreconciled process rate was revised, you should also revise this field.
Uncontrolled EMS Factor	This is an uncontrolled emission factor. The unit for this field is either lb per SCC unit or any appropriate units used in the reported emissions.
EMS Factor	This is the actual emission factor and is used to calculate annual emissions.
Annual EMS	This is the reported annual emissions for each entered pollutant. Units are tons/year for criteria pollutants, lbs/year for toxics, and curies/year for radionuclides.
Calculated Annual EMS	HARP calculates and displays this field for your reference and validation. They are calculated using the process rate and the emission factor data provided.
Hr. Max. EMS	Hourly maximum emissions. Units are lbs/hour, except for radionuclides which are in millicuries/hour.
Calculated Hourly EMS	The hourly maximum emissions are calculated by HARP and displayed for your reference and validation. They are calculated from the maximum hourly process rate and emission factor.
Excess EMS	Total excess emissions. Units are tons/yr for criteria pollutants, lbs/yr for toxics, and curies/yr for radionuclides.
Potential	Potential emissions for districts’ use. Units are tons/yr for criteria pollutants, lbs/yr for toxics, and curies/yr for radionuclides.
EMS Calc. Method	Emission calculation method code. This is an integer number that must correspond to one of the values in the DEFMETH table.

Last EMS Update	Date on which the annual emission rate was last updated in the database.
Person Changing	The person who last changed the annual emission rate in the database. This is automatically updated by HARP using the initials that you enter when you log onto the system.

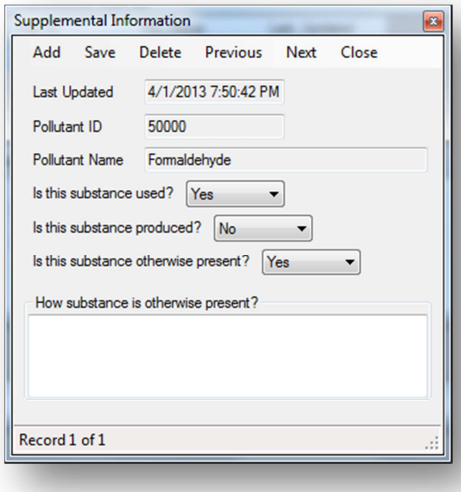
f. Supplemental Data

The supplemental data window is used to enter supplemental process parameters to describe substances used, produced or otherwise present. This applies to substances that are emitted in quantities below the applicable degree of accuracy for the facility or other substances that are required to be reported (but not quantified) by the Emissions Inventory Criteria and Guidelines Regulation (Title 17 CCR, section 93300.5). The supplemental data window can also track facilities whose activities are small enough that they do not result in reportable emissions. The following section describes the menu options and data fields for the supplemental data window.

Supplemental data are stored in the ***S_UP*** table of the user database. To add or edit release data, click the ***Supplemental Data*** node in the left panel of the ***Facility Data Entry Screen***. The ***Facility Data Entry Screen*** will display a list of supplemental data that are tied to the facility. This list may be sorted by clicking on a column.



To access the complete supplemental data record, double-click on a record or highlight a record on the list and select ***Edit***.



Menu Descriptions

Name	**Description**
Add Data	Adds a new record
Edit	Edit the selected record
Delete	Deletes the selected record

Field Descriptions

When you add a new supplemental record or edit an existing supplemental record the names and IDs of the facility, county, air basin and district are automatically set to the same values as the facility to which this record refers. The following is a description of the other data fields on the supplemental editing window.

Pollutant Name	The name of the pollutant being emitted. HARP fills this in automatically so that it corresponds to the pollutant ID on the supplemental process data-editing window.
Pollutant ID	An ID that uniquely identifies each emitted pollutant. A pollutant ID must be specified at the time a supplement record is added to the database. The pollutant ID must correspond to one of the pollutants in the POLLUTANT table.
Abbrev. Name	The name of the pollutant being emitted. HARP fills this in automatically so that it corresponds to the pollutant ID on the supplemental process data-editing window.
Used	A flag indicating whether this substance is used. Allowable values for this field are: Y (this substance is used), N (this substance is not used). Press the button labeled ***Used*** to change the value of this field.
Produced	A flag indicating whether this substance is produced. Allowable values for this field are: Y (this substance is produced), N (this substance is not produced). Press the button labeled ***Produced*** to change the value of this field.
Present	A flag indicating whether this substance is present. Allowable values for this field are: Y (this substance is present), N (this substance is not present). Press the button labeled ***Present*** to change the value of this field.
How Present	A description of how the chemical is present at this facility. This can be any string up to 39 characters.

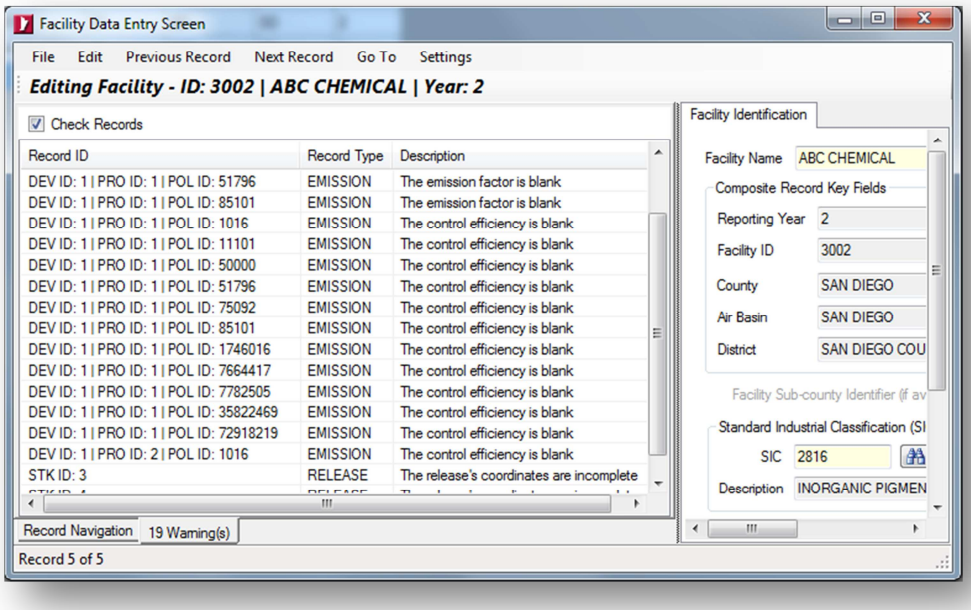
g. Prioritization Data

The HARP EIM performs the prioritization calculations in accordance with the guidelines set forth by the California Air Pollution Control Officers Association (CAPCOA) in the document entitled CAPCOA Air Toxics “Hot Spots” Program Facility Prioritization Guidelines (July 1990). See Section 13.d for more information.

h. Validation

The ***Facility Data Entry Screen*** can validate the current facility record and its associated child records. When this feature is turned on, the HARP EIM will list the potential issues associated with the current facility record.

To enable this feature, click on Warning tab on the bottom of the ***Facility Data Entry Screen*** and then check ***Check Records***.

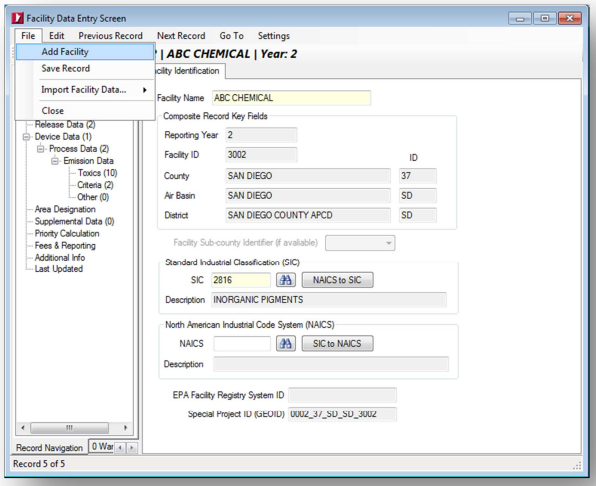


i. Adding Facility and Emission Data

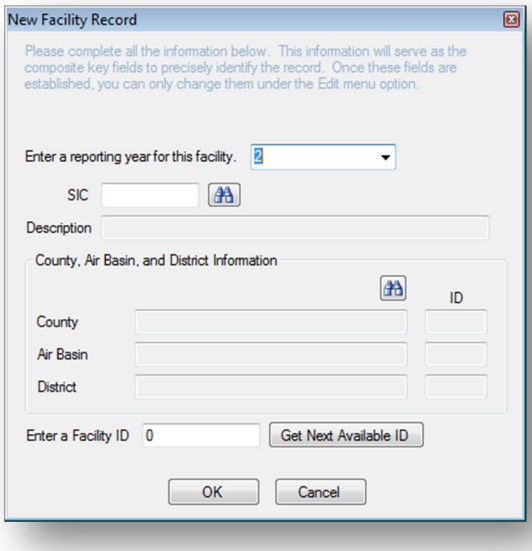
Facility and emission data can be added in several ways. This section describes how to hand enter facility and emission data using the ***Facility Data Entry Screen***. For information about importing data using an Excel file, see Section 15.c.

i. Adding a Facility

To add a new facility record, select ***File\Add Facility*** from the ***Facility Data Entry Screen***.



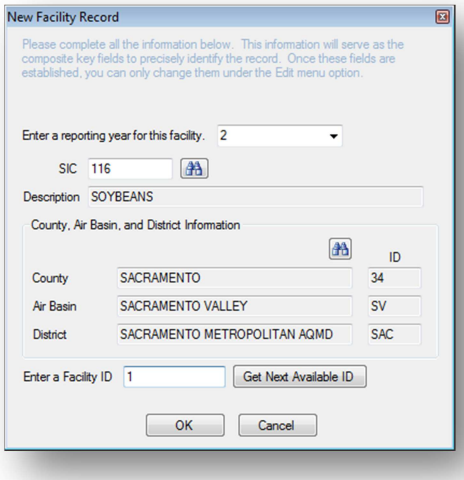
The following dialog box will appear.



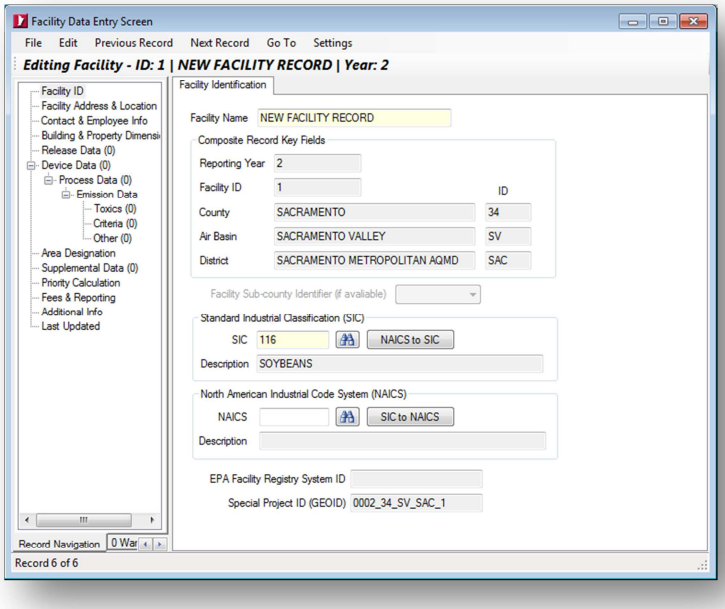
In order to add a facility record you must provide values for each of the fields shown in this dialog box. The Facility ID, Year, County, Air Basin, and District are all key fields, which must comprise a unique combination within the database. The Facility Standard Industrial Classification (SIC) is the SIC code associated with this facility and is also a required field, though it is not part of the key.

Use the lookup buttons  to help complete the fields.

When you have entered values for all fields in this dialog window, press ***OK***. The HARP EIM will then validate your entries.



If all values are valid, the ***Facility Data Entry Screen*** will automatically open to the new facility record. Complete all necessary fields for the facility record.



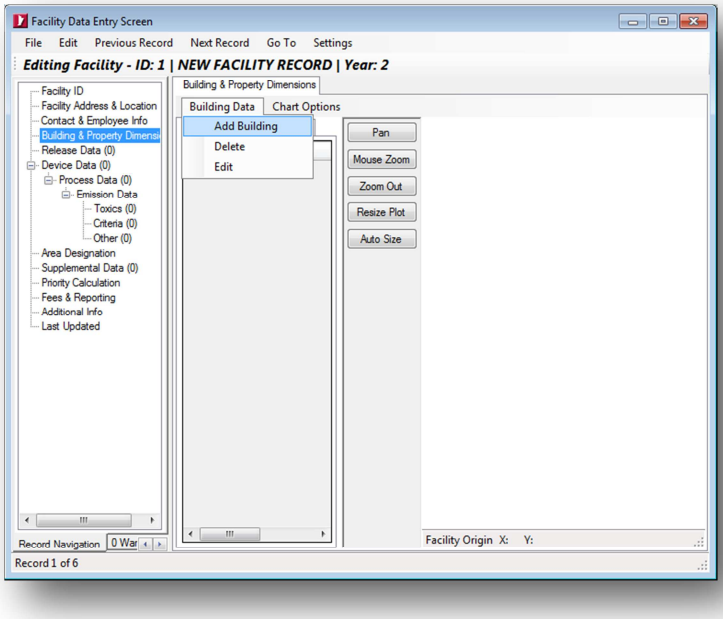
The other nodes that relate to the facility record are the following:

- Facility ID
- Facility Address & Location
- Contact & Employee Info
- Area Designation
- Priority Calculation
- Fees & Reporting
- Additional Info
- Last Update

Click on each of these nodes and complete all necessary fields. Refer to Section 8 for a description of the facility entry fields. Click ***File\Save*** to save the record.

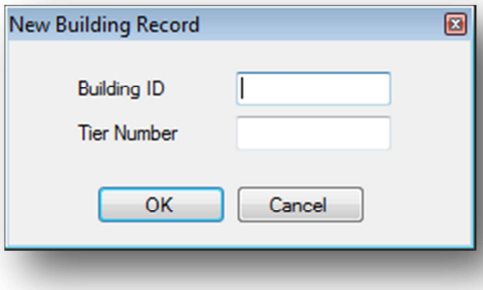
ii. Adding a Building

To add building data, select the ***Building & Property Dimensions*** node on the left panel and then select ***Building Data\Add Buildings*** in the building and property editing window.

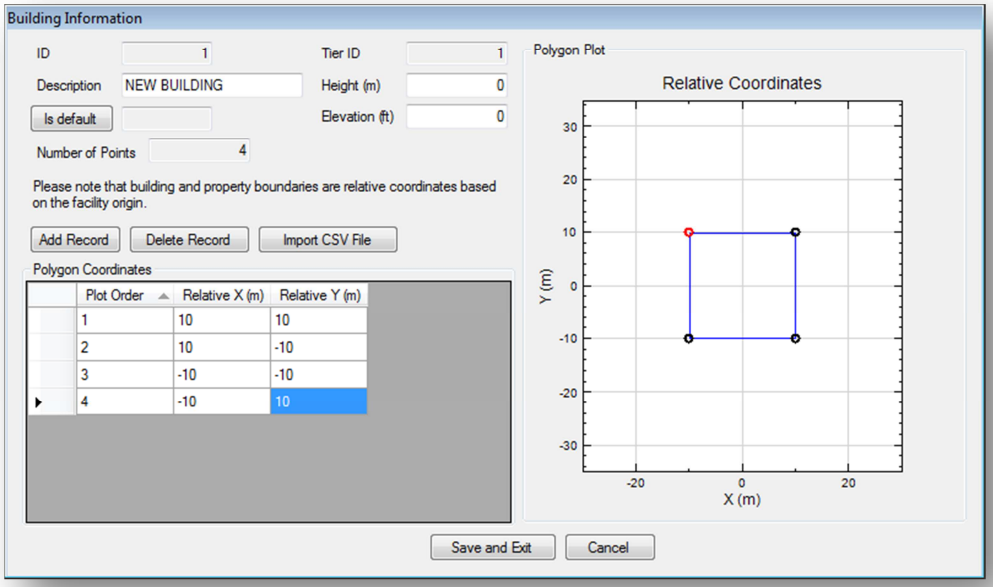


The following dialog box will appear. Enter a building ID and tier number that is unique to the facility. The use of tiers allows buildings to be described as multiple levels. Typically, one tier will be stacked atop another to describe a stepped-in geometry. Click ***OK*** to continue.

Note: There is a limitation for the buildings' tier level: when entering building information to the program, all buildings' tier level must start with the same number (e.g. 1).

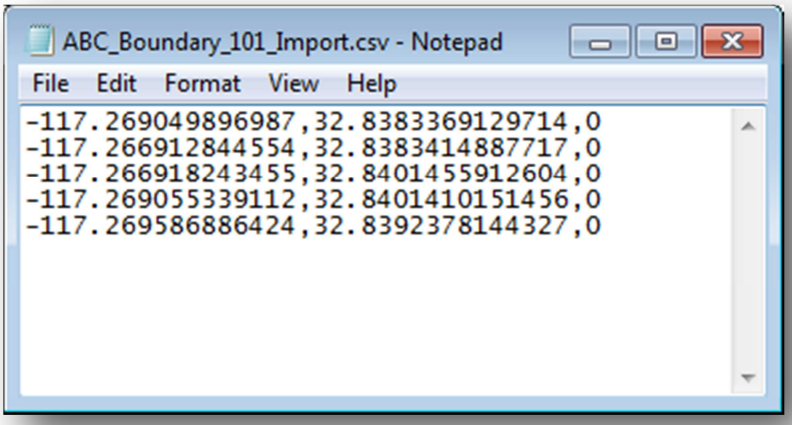


The following screen will appear. Click ***Add Record***, to add the number of corners or points for the building. For CEIDARS purposes, building points must be entered relative to the facility origin. As you enter in the points, the building will be displayed graphically in the right panel. Points colored in red will indicate the current point you are editing in the data row (left panel). Click ***Save and Exit*** to save the building record.



Alternative Option

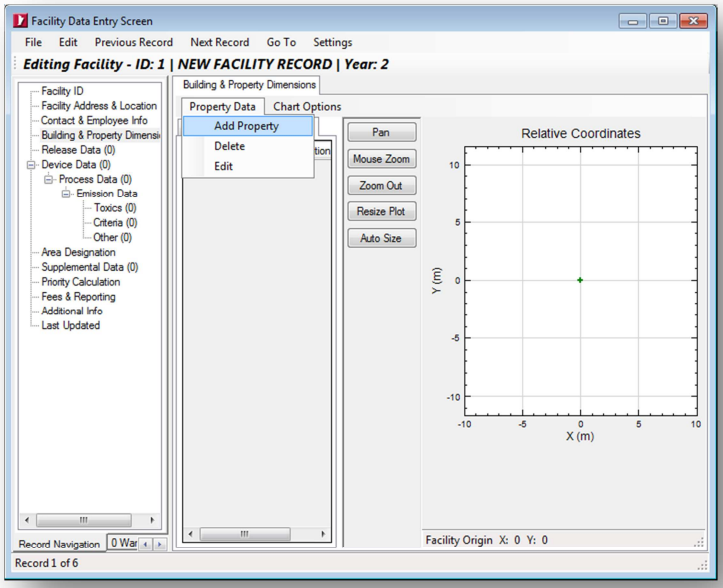
In lieu of manually determining the relative position of each point, you can supply a CSV file containing real world coordinates obtained from a Global Positioning Systems (GPS) device. The HARP EIM will automatically calculate the relative position of each point to the facility origin. The facility origin should be entered before using this feature. To create a recognizable format, the CSV file must be comma delimited with values in the following order: longitude, latitude, and elevation (in feet). The coordinates of the polygon should be listed in sequence. Elevation is not needed for the building data but it can be used by other parts of HARP. The coordinates must be in decimal degrees and use the WGS84 datum.



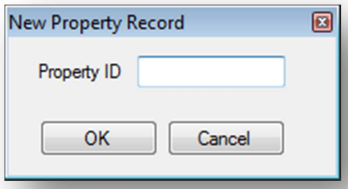
The example file above will result in a five sided polygon.

iii. Adding a Property

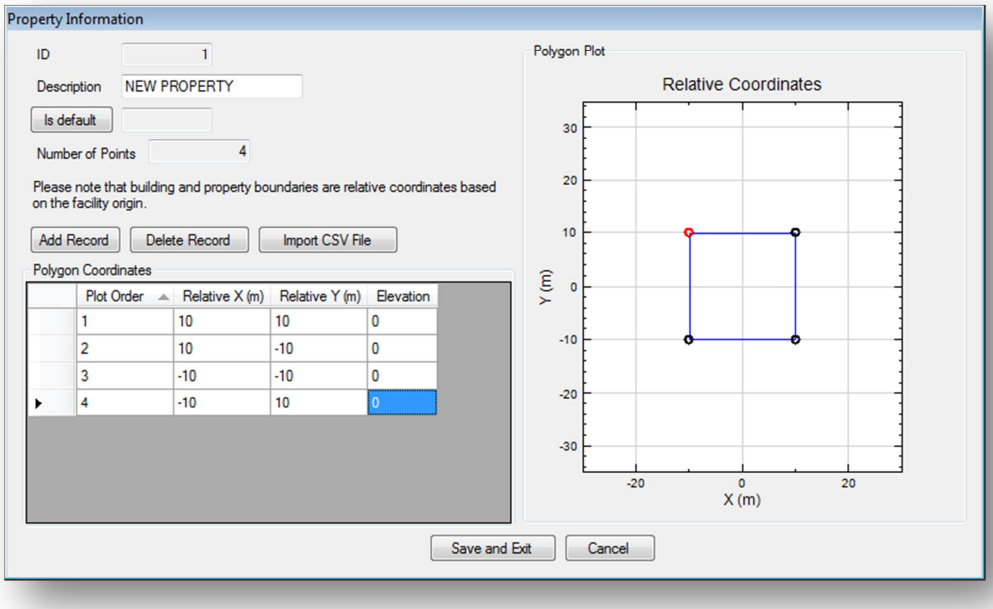
To add property data, select the ***Building & Property Dimensions*** node on the left panel, select the ***Property Data*** tab, and then select ***Property Data\Add Property*** in the building and property editing window.



The following dialog box will appear. Enter a property ID that is unique to the facility. Click ***OK*** to continue.

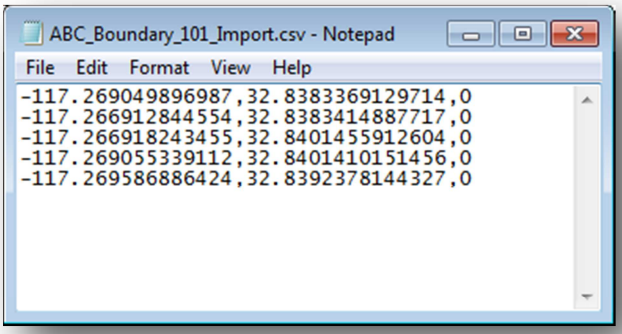


The following screen will appear. Click ***Add Record***, to add the number of corners or points for the building. For CEIDARS purposes, building points must be entered relative to the facility origin. As you enter in the points, the building will be displayed graphically in the right panel. Points colored in red will indicate the current point you are editing in the data row (left panel). Click ***Save and Exit*** to save the building record.



Alternative Option

In lieu of manually determining the relative position of each point, you can supply a CSV file containing real world coordinates obtain from a GPS device. The HARP EIM will automatically calculate the relative position of each point to the facility origin. The facility origin should be entered before using this feature. To create a recognizable format, the CSV file must be comma delimited with values in the following order: longitude, latitude, and elevation (in feet). The coordinates of the polygon should be listed in sequence. The coordinates must be in decimal degrees and use the WGS84 datum.

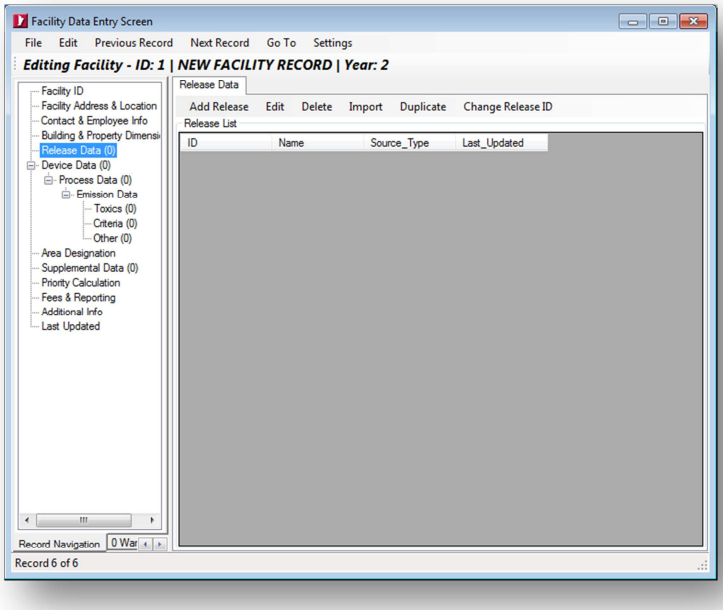


The example file above will result in a five sided polygon.

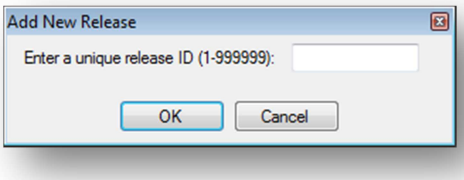
iv. Adding a Release

When you add a new release, the names and IDs of the facility, county, air basin, and district are automatically set to the same values as the facility that contains that release.

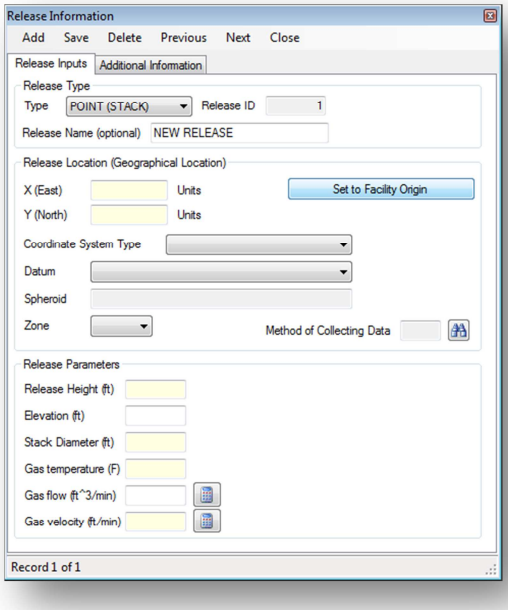
To add a new release to the facility, select the ***Release Data*** node and select ***Add Release*** from the release data window.



The following dialog box will appear. In order to add a release, you must provide a release ID. The release ID must be a positive integer number, up-to-six digits that is unique for the current facility. Click ***OK*** to continue

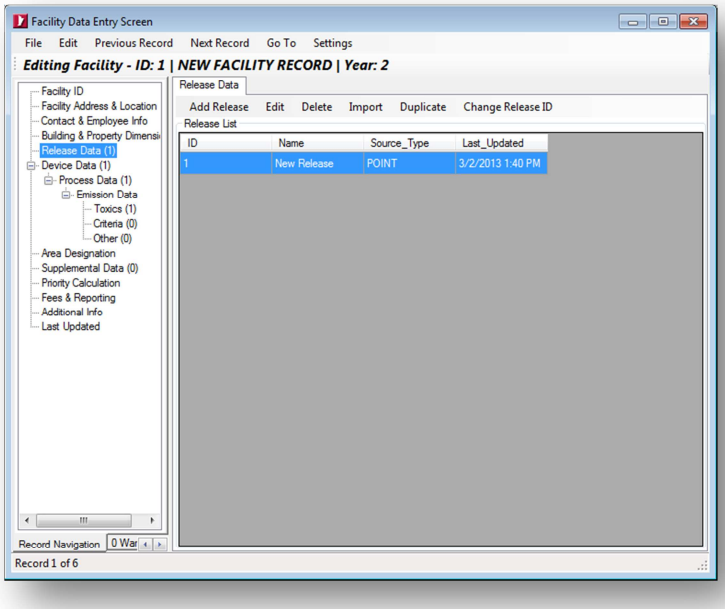


The following window will appear. Depending on the type of release (i.e., point, volume, area source, or an open pit) certain parameters should be provided. Refer to Section 8.b for descriptions of each of the fields to be entered.



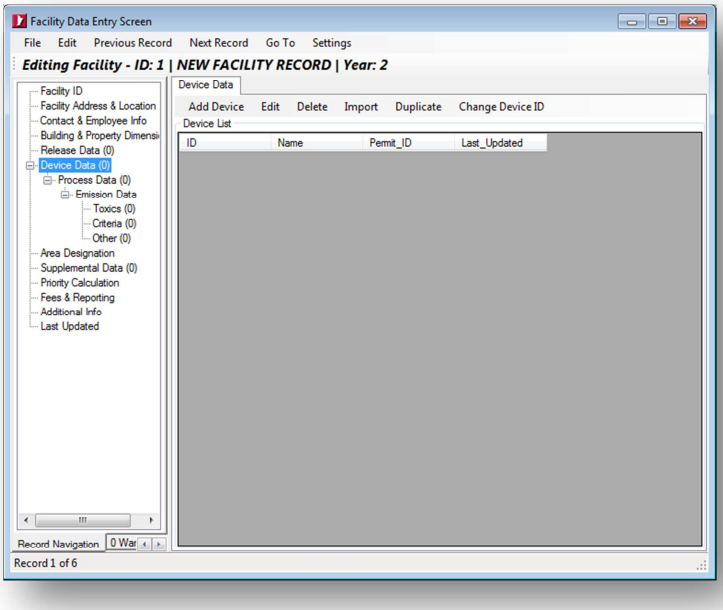
Please note that every release should be identified with a set of coordinates regardless of the release type.

Click ***Close*** to return to the release editing window.

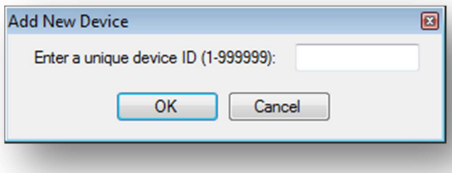


v. Adding a Device

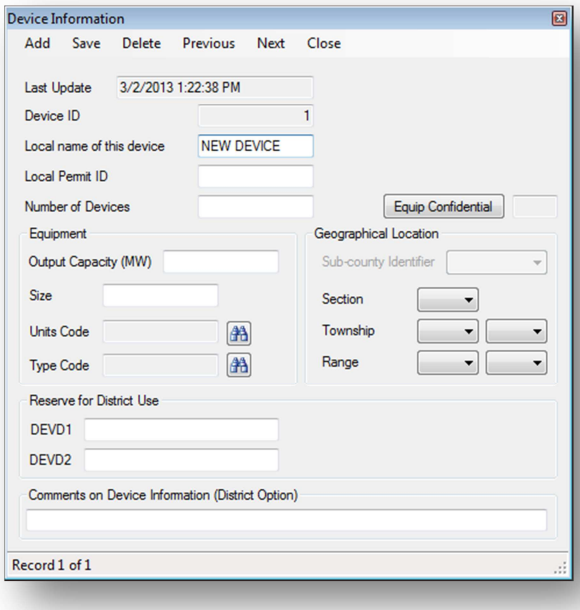
To add a new device, select the ***Device Data*** node and select ***Add Device*** from the menu of the device data window.



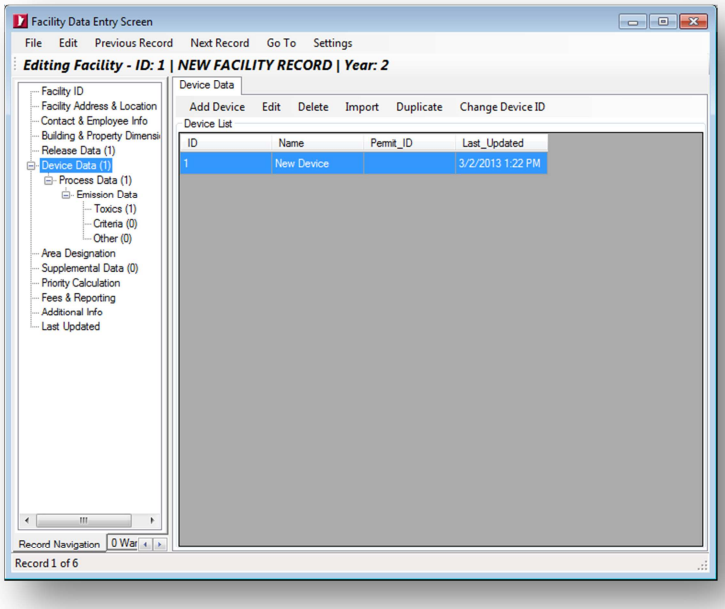
The following dialog box will appear. Enter a numeric device ID that is unique for the current facility. Click ***OK*** to continue.



Complete the information for the device. Refer to Section 8.c for device data field descriptions.

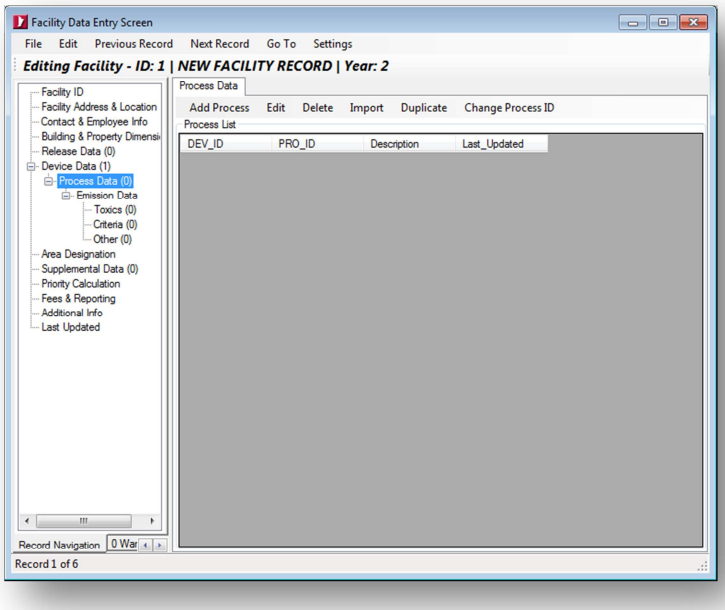


Click ***Close*** to return to the device editing window.

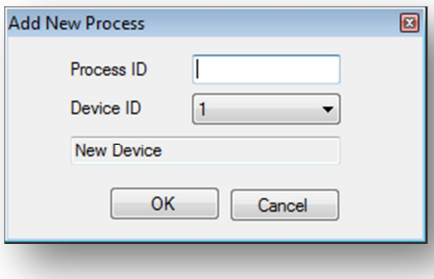


vi. Adding a Process

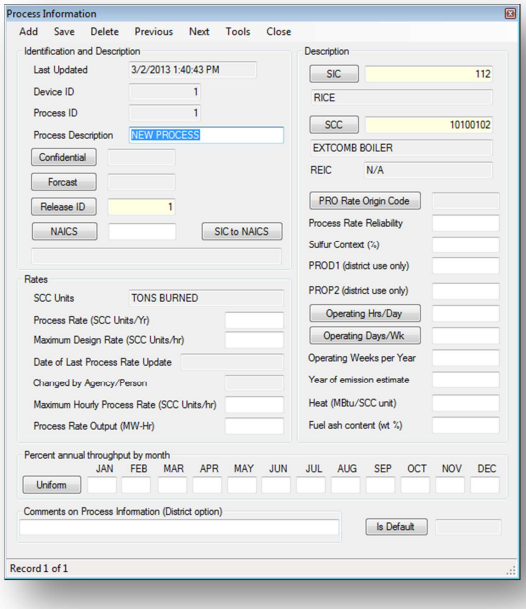
To add a new process, select the ***Process Data*** node and select ***Add Process*** from the menu of the process data window. Please note that a device is required before a process record can be added.



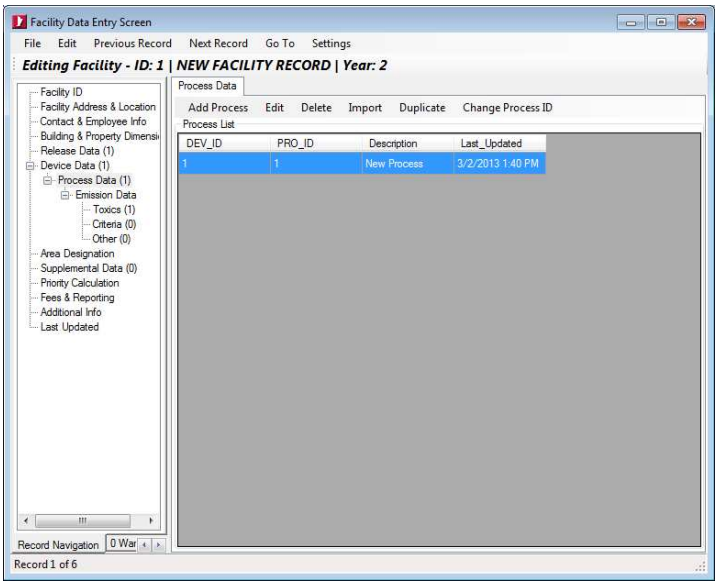
The following dialog box will appear. Enter a numeric process ID that is unique for the current facility and select a device that the process is tied with. Click ***OK*** to continue.



Complete the information for the process. Please note that you will receive warning messages to associate a release ID to the process and the SIC needs to be completed. Refer to Section 8.d for process data field descriptions.

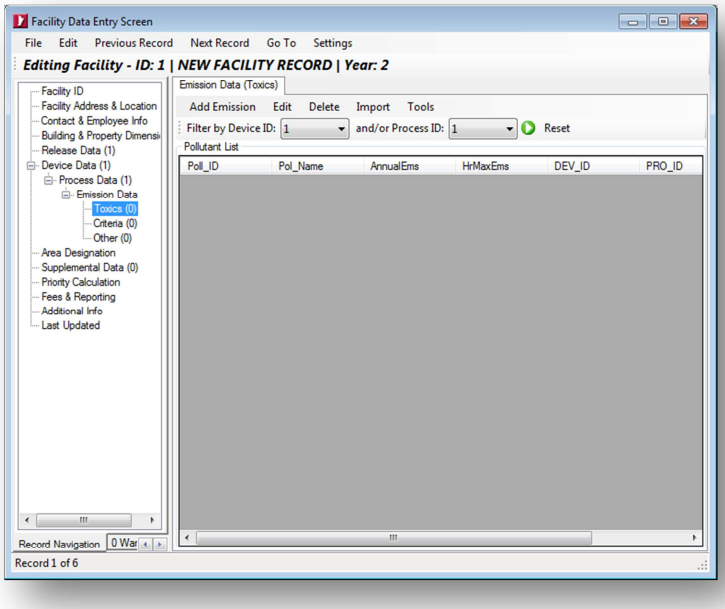


Click ***Close*** to return to the process editing window.


Facility Data Entry Screen
File
Edit
Previous Record
Next Record
Go To
Settings
Editing Facility - ID: 1 | NEW FACILITY RECORD | Year: 2
Facility ID
Facility Address & Location
Contact & Employee Info
Building & Property Dimensi
Release Data (1)
Device Data (1)
Process Data (1)
Emission Data
Toxics (1)
Criteria (0)
Other (0)
Area Designation
Supplemental Data (0)
Priority Calculation
Fees & Reporting
Additional Info
Last Updated
Process Data
Add Process
Edit
Delete
Import
Duplicate
Change Process ID
Process List
DEV_ID
PRO_ID
Description
Last_Updated
1
1
New Process
3/2/2013 1:40 PM
Record Navigation
0 War
Record 1 of 6

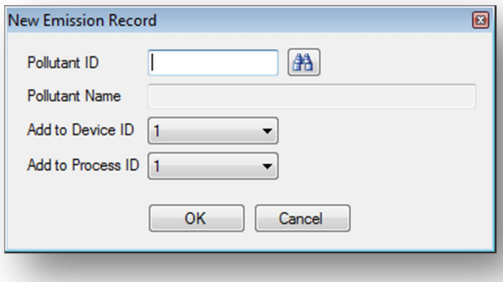
vii. Adding Emissions

To add a new emission record, first determine the type of pollutant you want to add. (i.e., toxics, criteria, or other). Then select the ***Toxics***, ***Criteria***, or ***Other*** (e.g., greenhouse gases, user-defined, or non-regulatory pollutants) node and select ***Add Emission*** from the emission editing window.

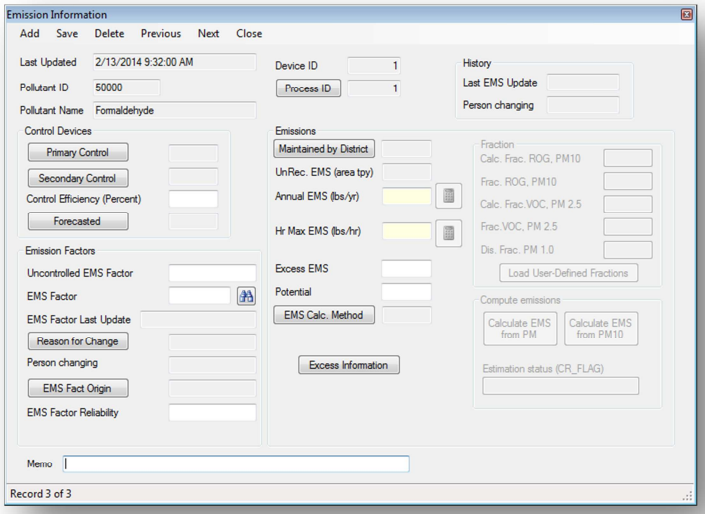


The following dialog box will appear. Enter a pollutant ID and select a device and process to associate the emission.

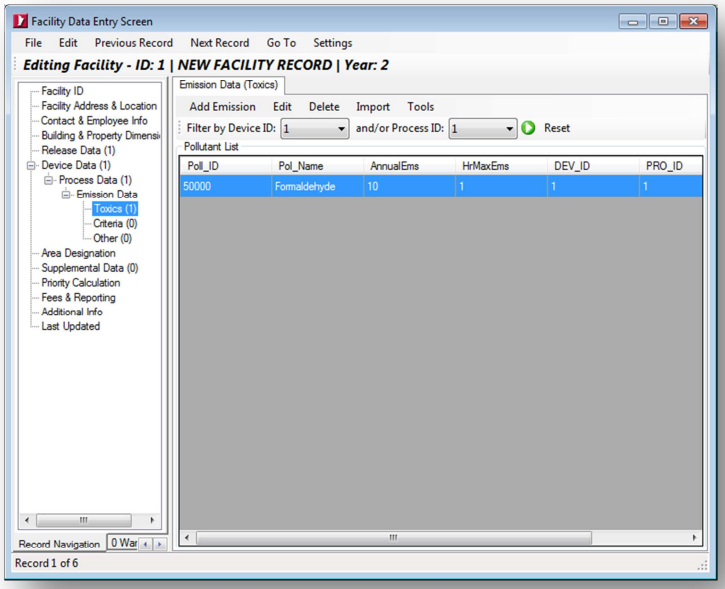
If you do not know the pollutant ID, press the  button to select one from a list. Click ***OK*** to continue.



Complete the information for the emission data. On windows there are various buttons that will help you look up and complete the fields. Please refer to Section 8.e for process data field descriptions.

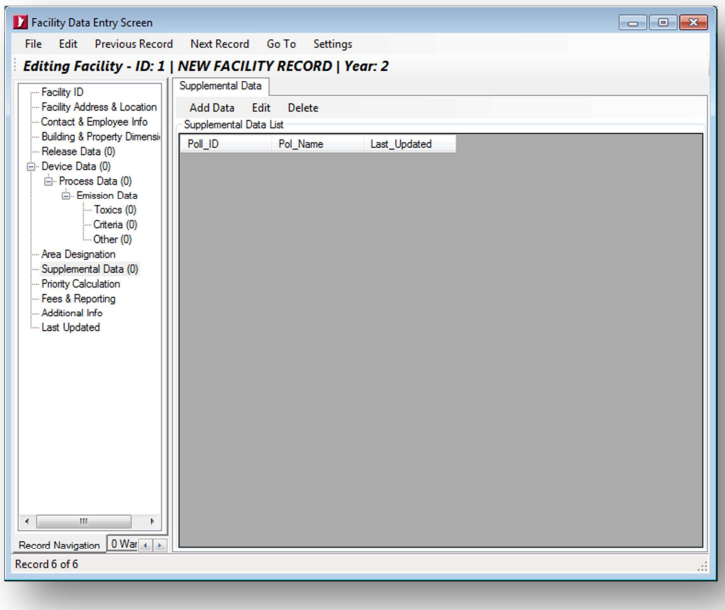


Click ***Close*** to return to the emission editing window.

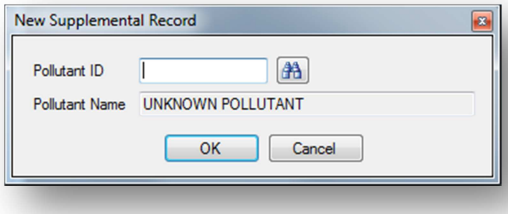


viii. Adding a Supplemental Record

To add a new supplemental record, select the ***Supplemental Data*** node and select ***Add Data*** from the menu of the supplemental data window.



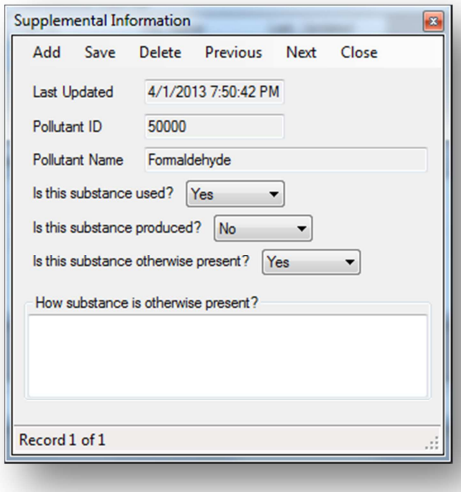
The following dialog box will appear.



In order to add a supplemental record you must provide a new pollutant ID. Pollutant IDs are either the CAS numbers or SAROAD codes. The pollutant ID must be a valid ID that exists in the pollutant table.

If you do not know the pollutant ID, press the  button to select one from a list.

When you have entered the new pollutant ID, press ***OK***. HARP will then validate your entry. You can only exit this dialog window by providing a valid pollutant ID or by pressing the ***Cancel*** button.


Supplemental Information
Add
Save
Delete
Previous
Next
Close
Last Updated
4/1/2013 7:50:42 PM
Pollutant ID
50000
Pollutant Name
Formaldehyde
Is this substance used?
Yes
Is this substance produced?
No
Is this substance otherwise present?
Yes
How substance is otherwise present?
Record 1 of 1

9. AREAWIDE DATA ENTRY SCREEN

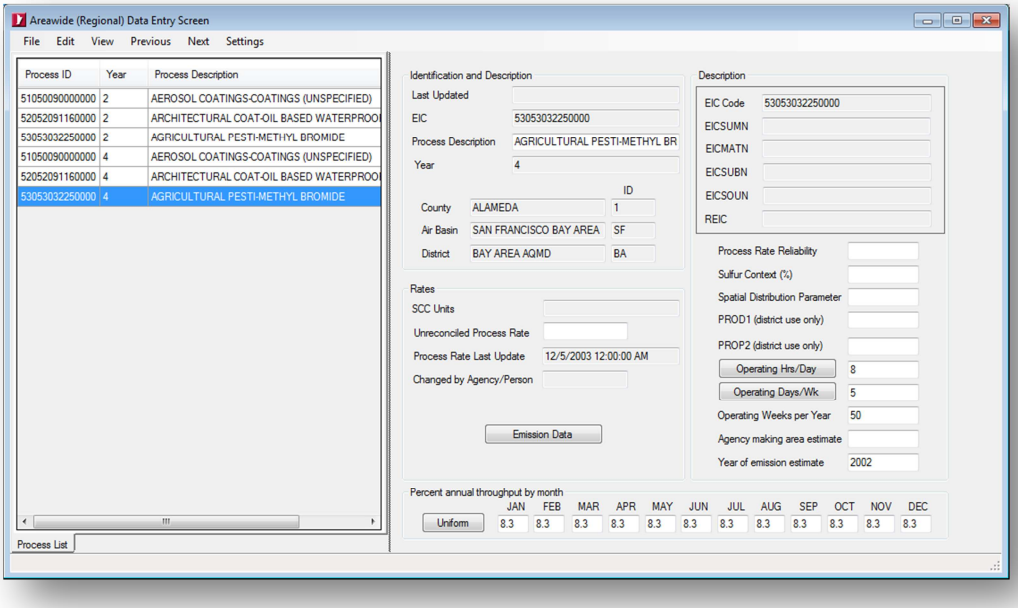
Areawide source data are edited in the ***Areawide Data Entry Screen***. These records use the same process and emission tables as for the facility records. However, the facility and device IDs are designated as zero for all areawide source records. Areawide sources are uniquely identified with a specific COABDIS and emission inventory code (EICs).

Please note that areawide source data are normally edited from previous emission inventory data. EICs are pre-assigned by the ARB. Process and emissions data can only be changed or updated and not added. If you need to create or add an EIC, consult the ARB for assistance.

To open the ***Areawide Data Entry Screen***, select ***Edit Data/Areawide (Regional) Sources*** in the main menu. This will open the ***Areawide Explorer***. Click ***Edit*** on the ***Areawide Explorer*** to open the ***Areawide Data Entry Screen***. The ***Areawide Data Entry Screen*** will be displayed as a separate window from the HARP EIM main screen. The remainder of this section further describes the user interface, and how to add data.

a. User Interface Overview

The ***Areawide Data Entry Screen*** will appear as a separate window from the HARP EIM main screen. A list of areawide sources from the user database is shown in the left panel. You may sort this list by clicking on a column name. When a record is highlighted in the left panel, the right panel displays the associated receptor information.



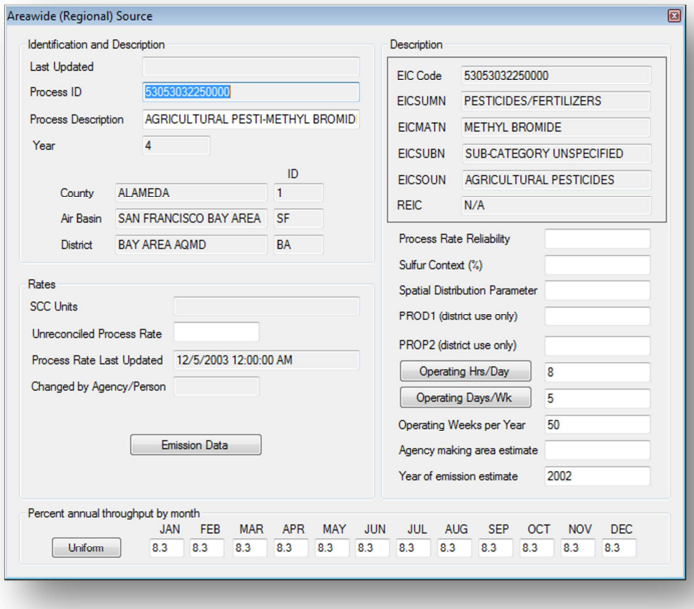
The table below describes the main menu options in the ***Areawide Data Entry Screen***.

Name	Description
File\Add Areawide Source	Adds a new record
File\Save Record	Saves the current record
Edit\Undo	Undo edits for the current record
Edit\Undo All	Undo edits for all records
Edit\Delete Record	Deletes the current highlighted record
View\Split View	Shows or hides the data entry fields. If the data entry fields are hidden, you can double click on a record to open a new window showing the data entry fields for the record. This feature is to save space on your screen.
Previous	Moves to the previous record
Next	Moves to the next record
Settings	Sets default values to apply to new records

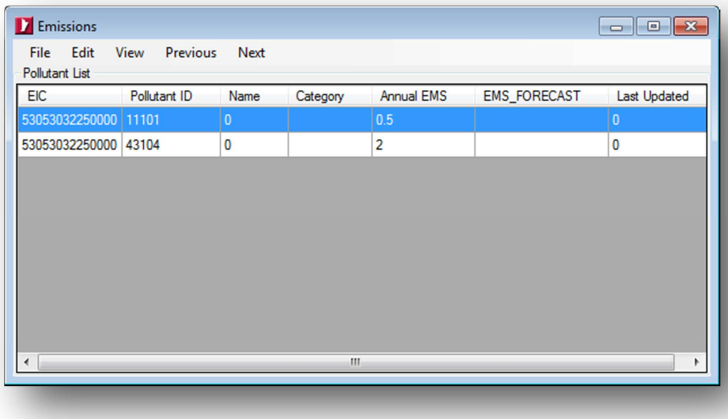
b. Editing an Areawide Source

The ***Areawide Data Entry Screen*** is tied to the ***PROCESS*** and ***EMISSION*** tables in the user database. Editing of areawide sources is the same as editing stationary point sources except the areawide sources start at the process level.

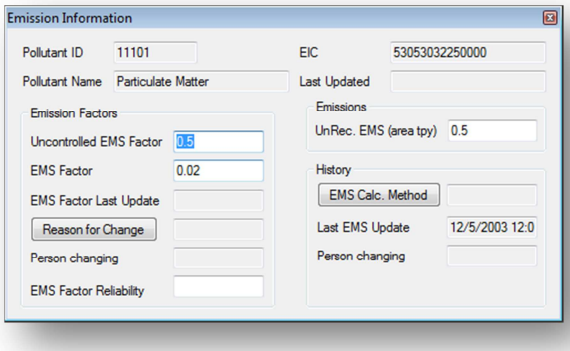
Change the ***Unreconciled Process Rate*** and any temporal parameters such as ***Operating Hours per Day*** and ***Operating Days per Week***. Be sure to specify the agency making the estimate. This information is needed to track any changes in the emissions for a specific EIC.



After entering appropriate process data, click the ***Emission Data*** button to access the emission data window.



Double-click on an emission record to edit the emission data. Please note that only unreconciled emissions are needed. ARB will reconcile emissions from the areawide source against its corresponding stationary point sources category. Once the data is entered, save the data and exit.



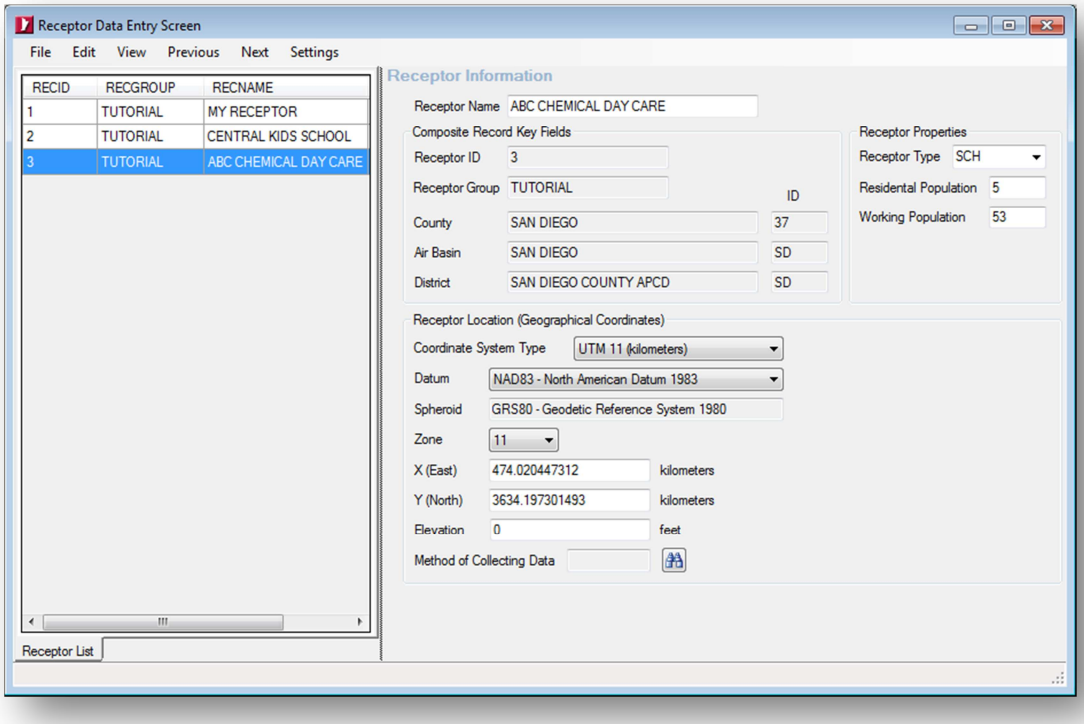
10. RECEPTOR DATA ENTRY SCREEN

Sensitive receptor data are edited in the ***Receptor Data Entry Screen***. For each sensitive receptor you are required to provide the location (UTM coordinates) and the residential and working populations. Sensitive receptors are specific points of interest defined by you where you want to calculate the potential health effects. A sensitive receptor might be a school, a nursing home or simply a residence. Sensitive receptor data is used in the prioritization calculation, air dispersion analysis, and health risk assessment.

To open the ***Receptor Data Entry Screen***, select ***Add/Edit Data\Receptor Data (e.g., Schools)*** from the main menu. This will open the ***Receptor Explorer***. Click ***Edit*** in the ***Receptor Explorer*** to open the ***Receptor Data Entry Screen***.

a. User Interface Overview

The ***Receptor Data Entry Screen*** is tied to the ***RECEP*** table in the user database. A list of receptors from the user database is shown in the left panel. You may sort this list by clicking on a column name. When a record is highlighted in the left panel, the right panel displays the associated receptor information.

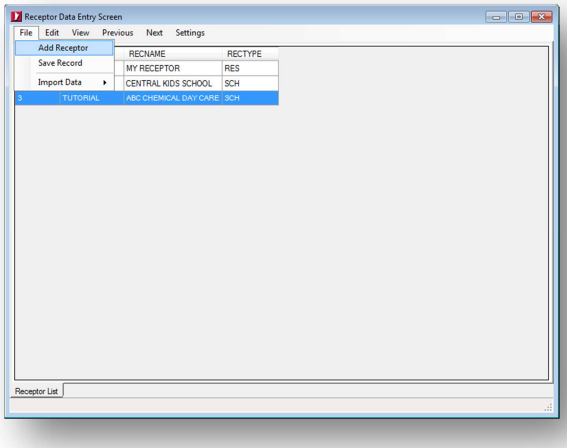


The table below describes the main menu options in the ***Receptor Data Entry Screen***.

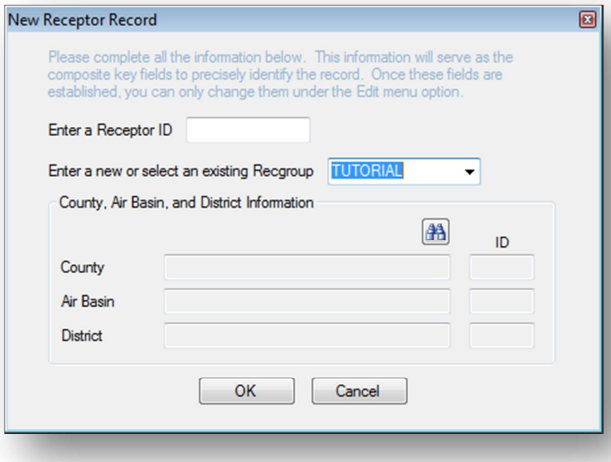
Name	Description
File\Add Receptor	Adds a new record
File\Save Record	Saves the current record
File\Import Data\Excel File	Imports data from an Excel file. See Section 15.c for more information
Edit\Undo	Undo edits for the current record
Edit\Undo All	Undo edits for all records
Edit\Delete Record	Deletes the current highlighted record
View\Split View	Shows or hides the data entry fields. If the data entry fields are hidden, you can double click on a record to open a new window showing the data entry fields for the record. This feature is to save space on your screen.
Previous	Moves to the previous record
Next	Moves to the next record
Settings	Sets default values to apply to new records

b. Adding a Sensitive Receptor

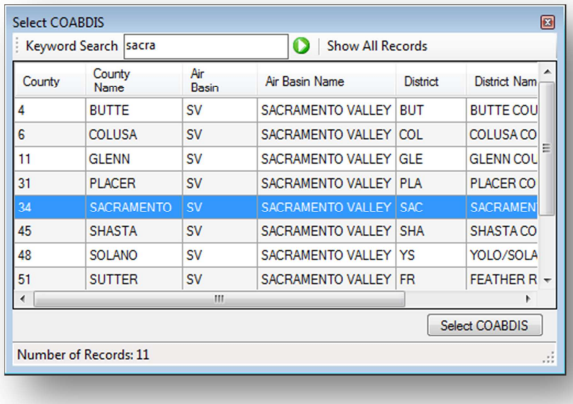
To add a new sensitive receptor, select ***File\Add Receptor*** from the main menu of the ***Receptor Data Entry Screen***.



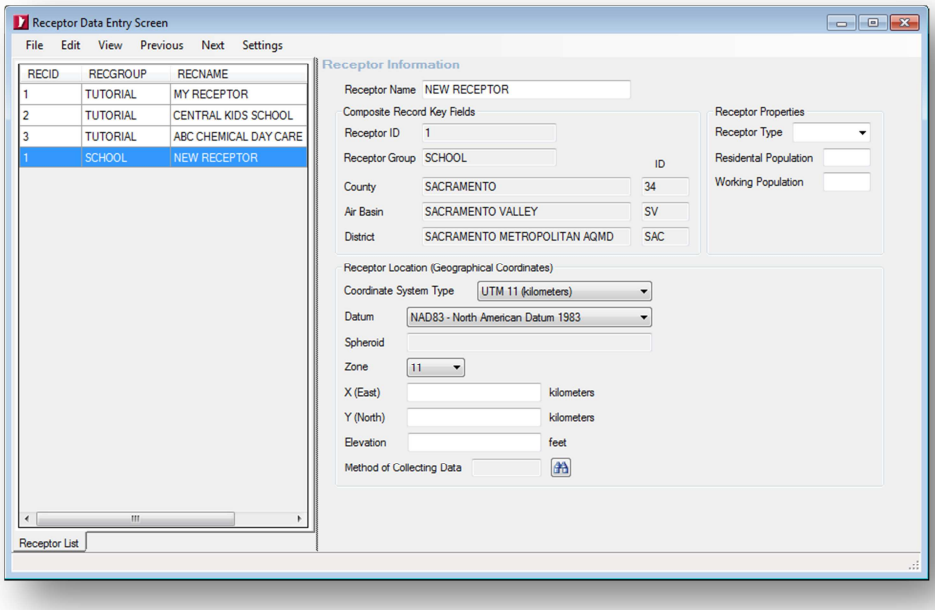
Enter the ***Receptor ID***, ***Recgroup ID***, ***County ID***, ***Air Basin ID***, and ***District ID***. These fields are the primary key fields for the receptor record. They will be used to uniquely identify the record.



Use the button with the binocular image to help find the appropriate county, air basin, and district IDs.



Then complete the blank receptor data fields.


Receptor Data Entry Screen
File
Edit
View
Previous
Next
Settings
RECID
RECGROUP
RECNAME
1
TUTORIAL
MY RECEPTOR
2
TUTORIAL
CENTRAL KIDS SCHOOL
3
TUTORIAL
ABC CHEMICAL DAY CARE
1
SCHOOL
NEW RECEPTOR
Receptor List
Receptor Information
Receptor Name
NEW RECEPTOR
Composite Record Key Fields
Receptor ID
1
Receptor Group
SCHOOL
ID
County
SACRAMENTO
34
Air Basin
SACRAMENTO VALLEY
SV
District
SACRAMENTO METROPOLITAN AQMD
SAC
Receptor Properties
Receptor Type
Residental Population
Working Population
Receptor Location (Geographical Coordinates)
Coordinate System Type
UTM 11 (kilometers)
Datum
NAD83 - North American Datum 1983
Spheroid
Zone
11
X (East)
kilometers
Y (North)
kilometers
Elevation
feet
Method of Collecting Data

11. IMPORTING DATA

This section describes how to import emission inventory data. Emission inventory data can be imported using a CEIDARS 2.5 Transaction File or a HARP database. The CEIDARS 2.5 transaction file format is described in the CEIDARS Data Dictionary at http://www.arb.ca.gov/app/emsinv/dist/doc/datadict.pdf.

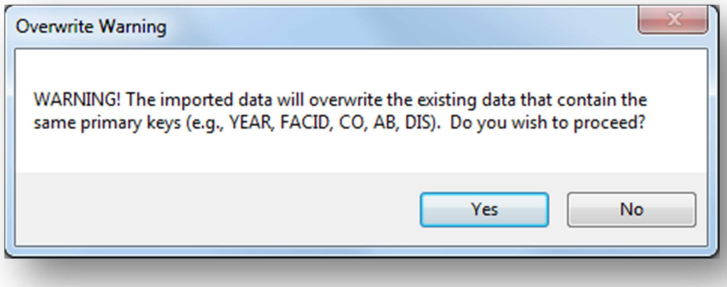
The EIM can also import emission inventory data using a Microsoft Excel Spreadsheet. See Section 15.c for more information about importing using a spreadsheet.

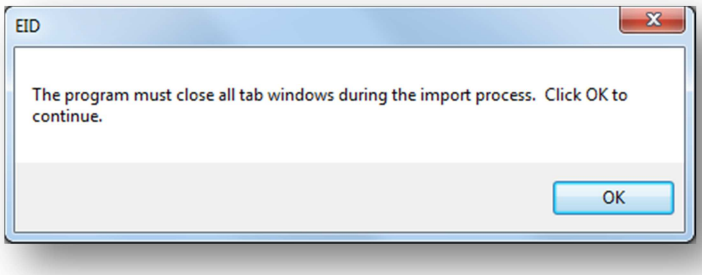
The imported data will be appended to the existing database. However, when the imported data have the same primary keys as the existing records, then those records will be overwritten.

a. Importing Data Using a HARP User Database

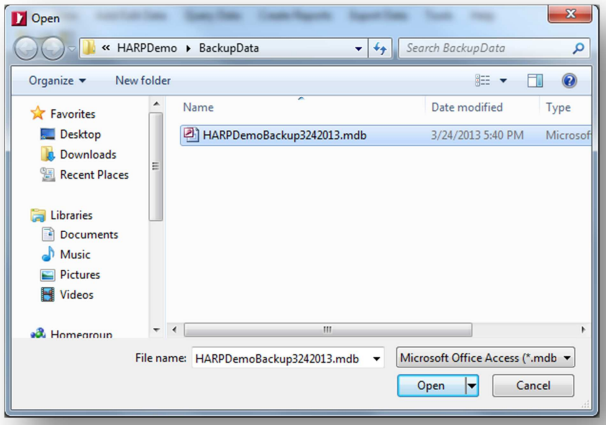
To import data using a HARP user database, click ***Add/Edit Data\Import Data\Import from HARP Database*** in the main menu.

You will receive an overwrite warning and a message informing you that the program will close any open tab pages.

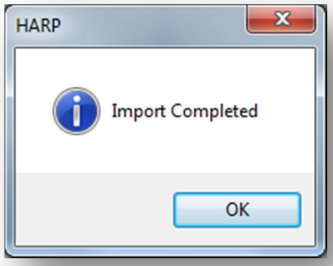




In the open dialog box, browse and select the database you wish to import. Click ***Open***.



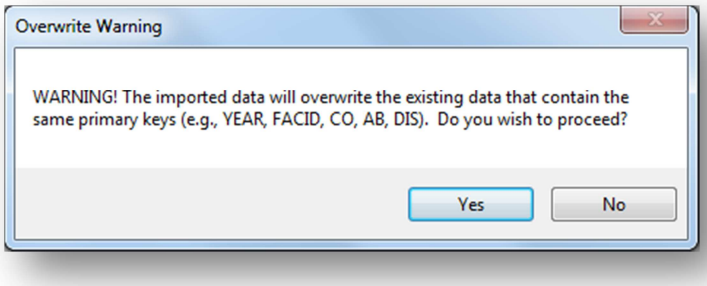
A message will popup when the import is complete.

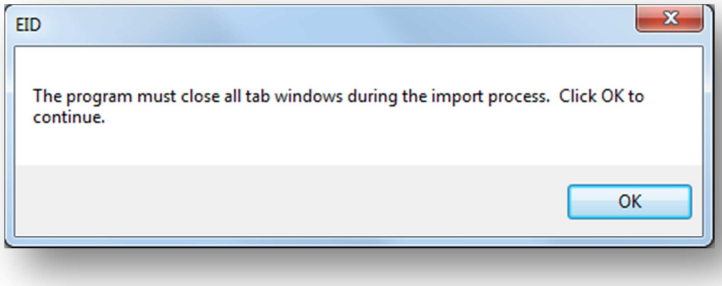


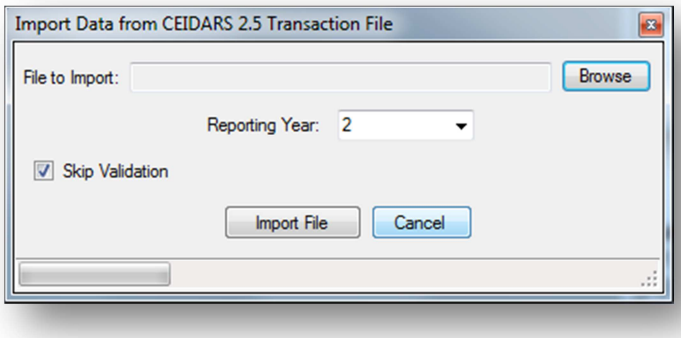
b. Importing Data Using a CEIDARS Transaction File

To import data using a HARP user database, click ***Add/Edit Data\Import Data\Import from HARP CEIDARS 2.5 Transaction File*** in the main menu.

You will receive an overwrite warning and a message informing you that the program will close any open tab pages.



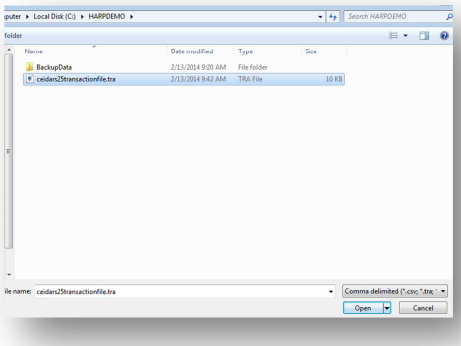


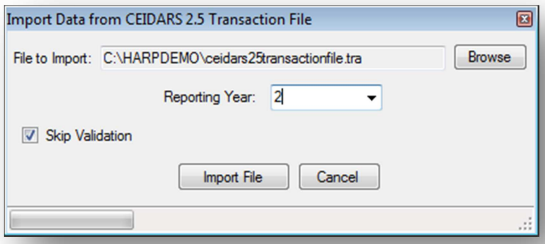


Click ***Browse***. In the open dialog box, browse and select the transaction file you wish to import. Click ***Open***.

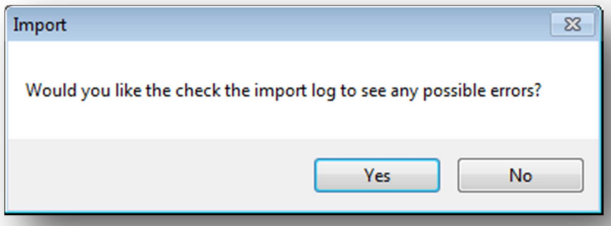
Enter a new or existing reporting year and click ***Import File***. Please note that the record validation is a very time consuming process. By default the transaction file

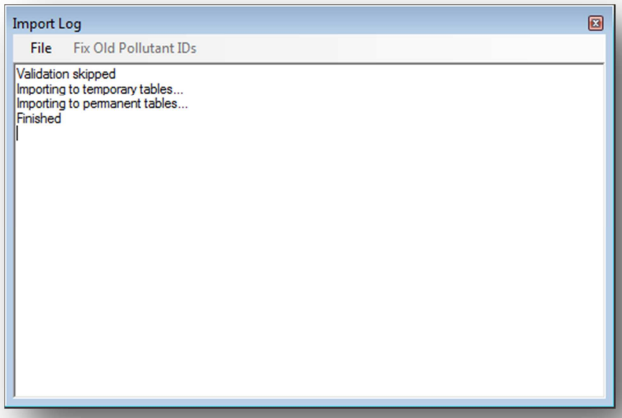
validation is skipped when you import a transaction file. If you suspect there is a potential error in your file, uncheck ***Skip Validation***.





When the import has finished, a log window will appear showing any errors detected during the import process. Follow any onscreen instructions to fix the errors.





12. QUERIES

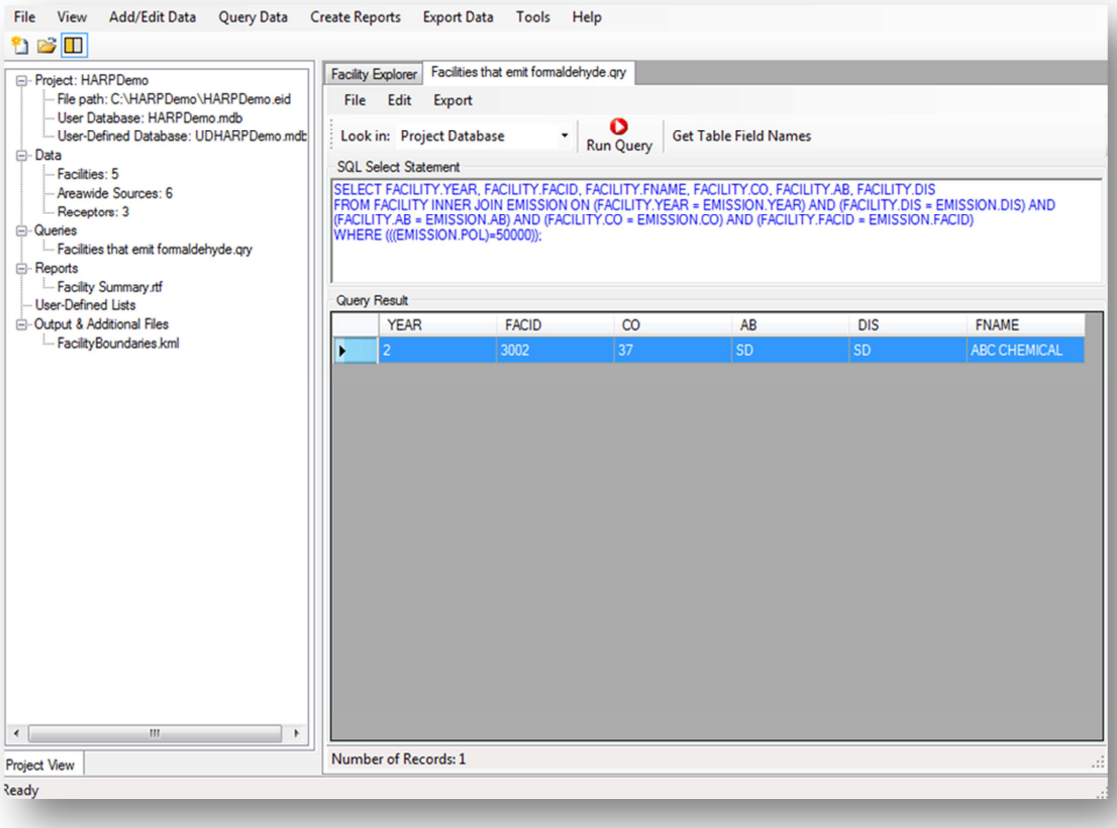
The query screen allows you to retrieve custom and detailed information from your database and export the information to a CSV file. In order to use this feature, you must have some experience with SQL.

a. Prebuilt Queries

To assist you with querying your database, the query screen comes with a list of prebuilt queries. For example, you can see which facilities in your database emit formaldehyde. You can also add to the prebuilt list using the ***SQL Viewer***. See Section 15.b for more information.

b. Creating and Editing a Query

To create a new query, click ***Query Data*** in the main menu. To access an existing query double-click on a query under the ***Queries*** node in the ***Project Panel***.



The table below describes the features on the query screen.

Name	**Description**
File\Load Prebuilt Query	Select from a list of prebuilt queries
File\Save	Saves the query
File\Save As	Saves the query under a new filename
Export	Exports the query result to a CSV file
Look in	Selects the database to run the query against
Run Query	Executes the query
Get Table Field Names	A lookup tool to help build a query. The user can view the available table and column names in the database.

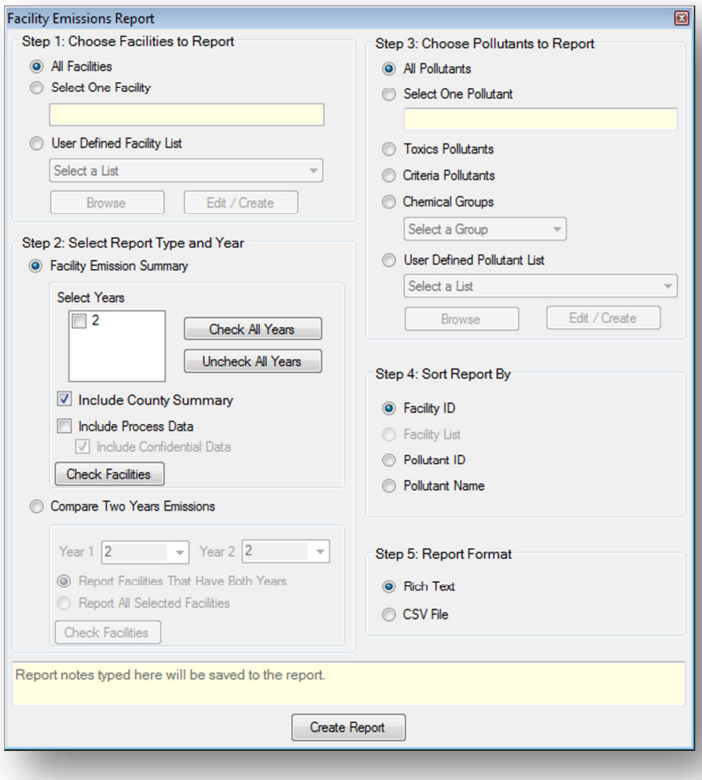
13. REPORTS

This section describes the types of reports available in the HARP EIM. Reports created by the HARP EIM can be exported as a text or CSV file. When a report is exported as a text file, it will be automatically displayed in the main screen. To help automate some of the report options, the reports also allow you to select a predefined facility or pollutant list. See Section 15.a for more information on how to create a user-defined list.

a. Facility Emissions Report

The Facility Emissions Report provides a summary of the emissions for a single or group of facilities. Emissions can be filtered by reporting year or the emissions can be compared between two years. The emissions can also be categorized by processes and summarized by county. In addition, this report also allows you to select the type of pollutant you wish to report.

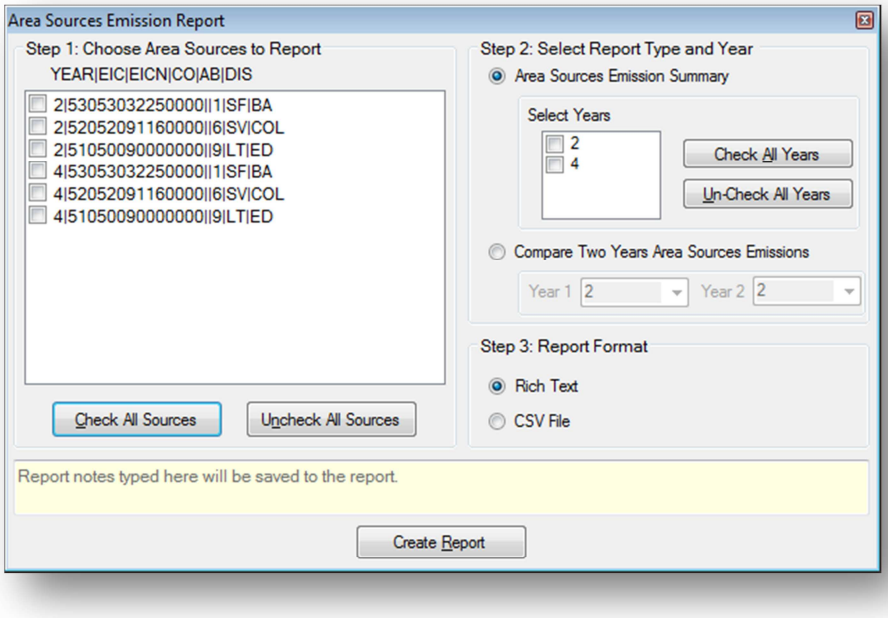
To create a Facility Emissions Report, select ***Create Reports\Facility Emission Report*** in the main menu.



b. Areawide Source Emission Report

The Areawide Source Emission Report provides a summary of emissions for a single or group of areawide sources. Emissions can be reported by reporting year or the emissions can be compared between two years.

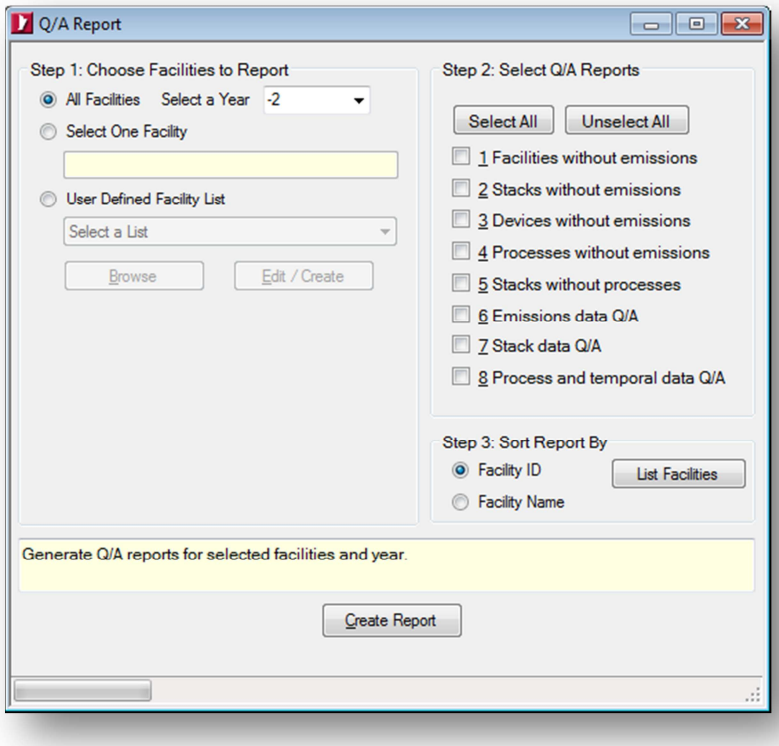
To create an Areawide Source Emissions Report, select ***Create Reports\Areawide Source Emissions Report*** in the main menu.



c. Quality Assurance Report

The Quality Assurance Report is intended to provide various checks on the consistency and completeness of the data contained in the database.

To create a Quality Assurance Report, select ***Create Reports\Quality Assurance Report*** in the main menu.



d. Prioritization

The HARP EIM performs the prioritization calculations in accordance with the guidelines set forth by the CAPCOA in the document entitled CAPCOA Air Toxics "Hot Spots" Program Facility Prioritization Guidelines (July 1990). In addition, the HARP EIM automatically applies the appropriate molecular weight adjustment factor (MWAF) for each Hot Spots substance; therefore, facility emissions should not be manually adjusted before entering them into the HARP EIM (see Chapter 4 of the OEHHA Guidance Manual for an example calculation, or the Emission Inventory Criteria Guidelines for reporting guidance).

Prioritization scores are used to determine which facilities shall complete a health risk assessment for the "Hot Spots" Program. Prioritization scores should not be interpreted as estimates of potential health impacts. Only a health risk assessment can provide those types of estimates. This functionality is intended for District use.

Below is an overview of the prioritization process in the HARP EIM.

i. Data Needed to Calculate a Prioritization Score

In addition to the facility information, the data listed below must be entered before a prioritization score can be calculated. Refer to the following sections for more information about the data. Please note that release height is needed for prioritization score calculation for the Dispersion Adjustment Procedure. When a stack or stack height is not specified for a process, a zero release height is assumed in the calculation.

- Pollutant emissions (Section 8.e)
- Adjustment factors (Section 13.d.iii)
- Distance to the nearest receptor (Section 13.d.ii)

  In lieu of manually entering the nearest receptor distance, the HARP EIM can calculate it using the following:
  - Facility property boundaries (Section 8.a)
  - Source or release locations (Section 8.b)
  - Sensitive receptor locations (Section 10)

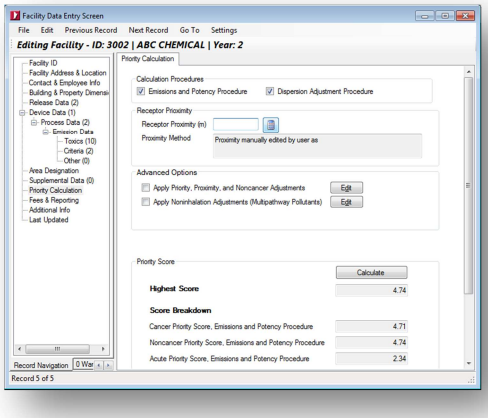
ii. Distance to the Nearest Receptor

The receptor proximity adjustment factor used in the prioritization score calculation is based on the distance from the facility release point to the nearest receptor. The

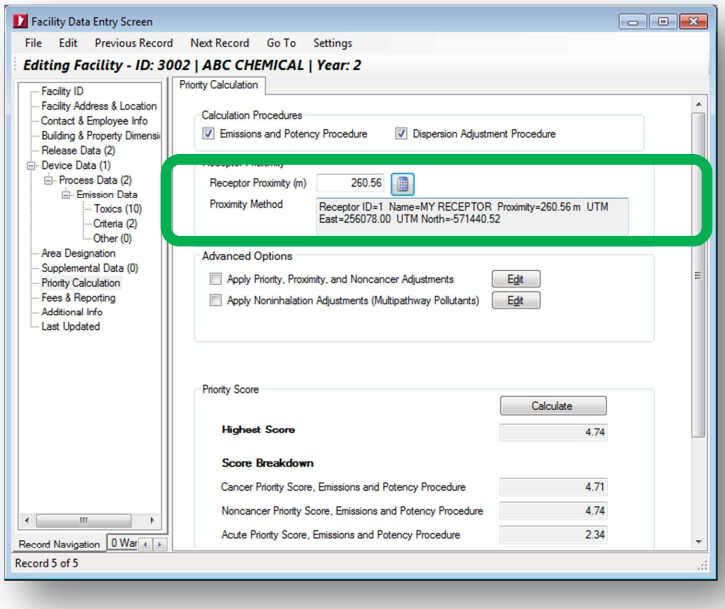
nearest receptor distance is determined from the facility property line to the nearest potential receptor and the distance from the facility's nearest emitting source to the facility's property line. For more information, see Appendix C and F in the CAPCOA Air Toxics "Hot Spots" Program Facility Prioritization Guidelines.

The nearest receptor distance can be manually entered or calculated by HARP EIM. The HARP EIM can calculate the nearest receptor distance for a single facility or a group of facilities. The nearest receptor distance can be calculated in the main screen of the HARP EIM or in the ***Facility Data Entry Screen***. To access the ***Facility Data Entry Screen***, select ***Add/Edit Data\Facility and Emission Data***. This will open the ***Facility Explorer***. Click ***Edit*** in the ***Facility Explorer*** to open the ***Facility Data Entry Screen***.

To calculate the nearest receptor distance for a single facility, select the facility of interest in the ***Facility Data Entry Screen*** and click on the ***Priority Calculation*** node.

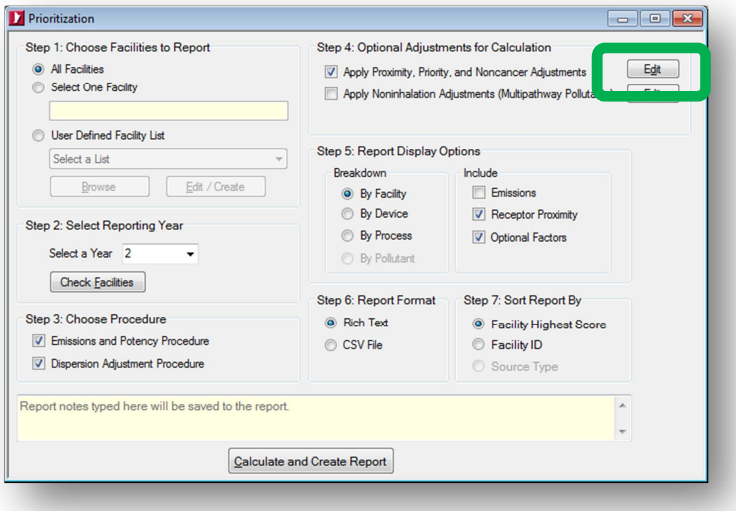


Click the calculator icon next to the ***Receptor Proximity*** field.

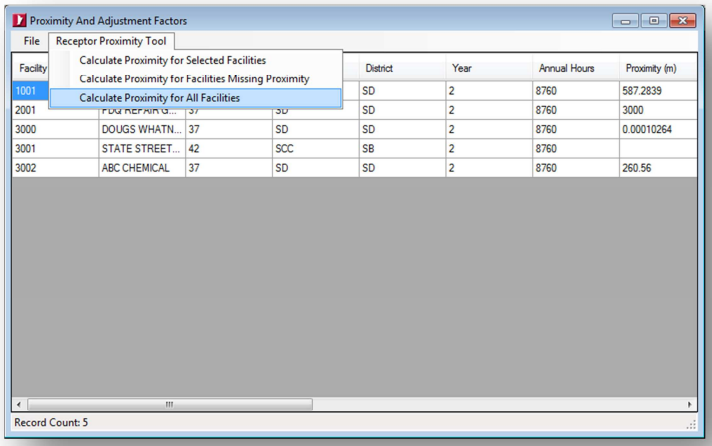


The receptor proximity will be calculated and automatically inserted into the field. The proximity method detailing the receptor information will also be filled in.

To calculate the nearest receptor distance for an individual or group of facilities, select the ***Reports\Prioritization*** from the main menu. In the ***Prioritization*** window, click ***Edit*** next to the ***Apply Proximity, Priority, and Noncancer Adjustments*** check box under ***Advanced Option***.



Then click the ***Receptor Proximity Tool*** menu option and select one of the calculation options.


Proximity And Adjustment Factors
File
Receptor Proximity Tool
Calculate Proximity for Selected Facilities
Calculate Proximity for Facilities Missing Proximity
Calculate Proximity for All Facilities
Facility
District
Year
Annual Hours
Proximity (m)
1001
SD
2
8760
587.2839
2001
SD
2
8760
3000
3000
DOUGS WHATN...
37
SD
SD
2
8760
0.00010264
3001
STATE STREET...
42
SCC
SB
2
8760
3002
ABC CHEMICAL
37
SD
SD
2
8760
260.56
Record Count: 5

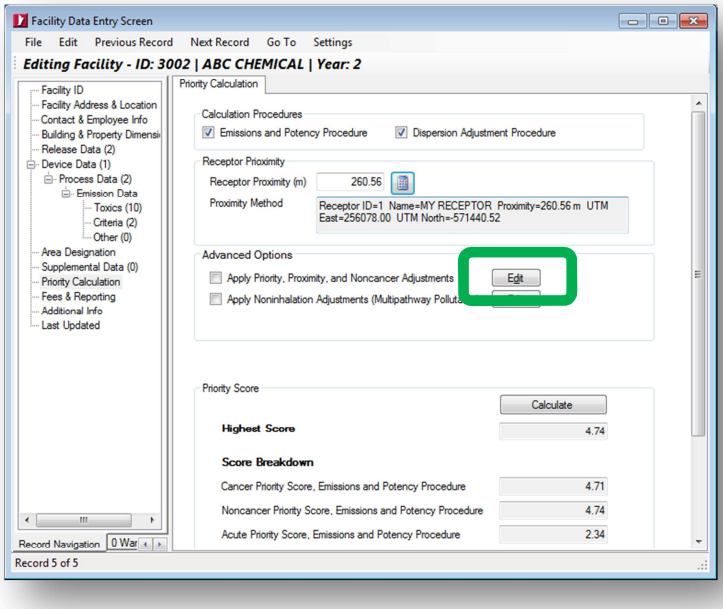
iii. User-Specified Factors for Prioritization

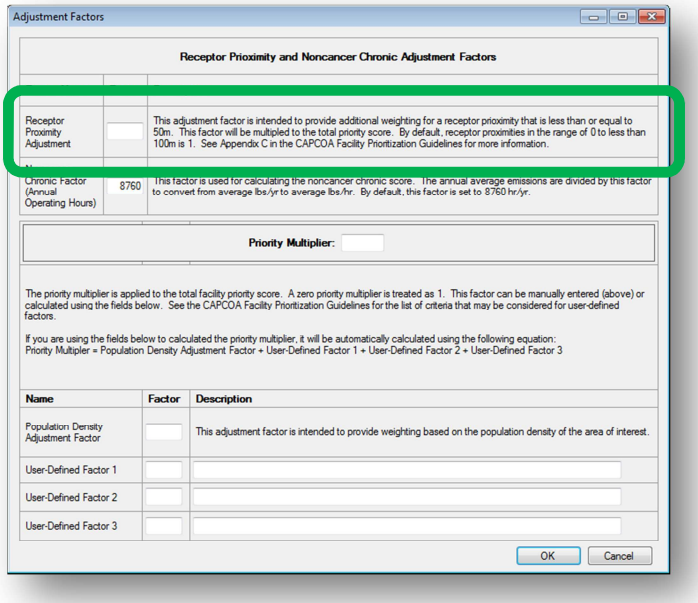
Below is a description of each of the user-specified factors for prioritization.

Receptor Proximity Adjustment Factor (Within 50m)

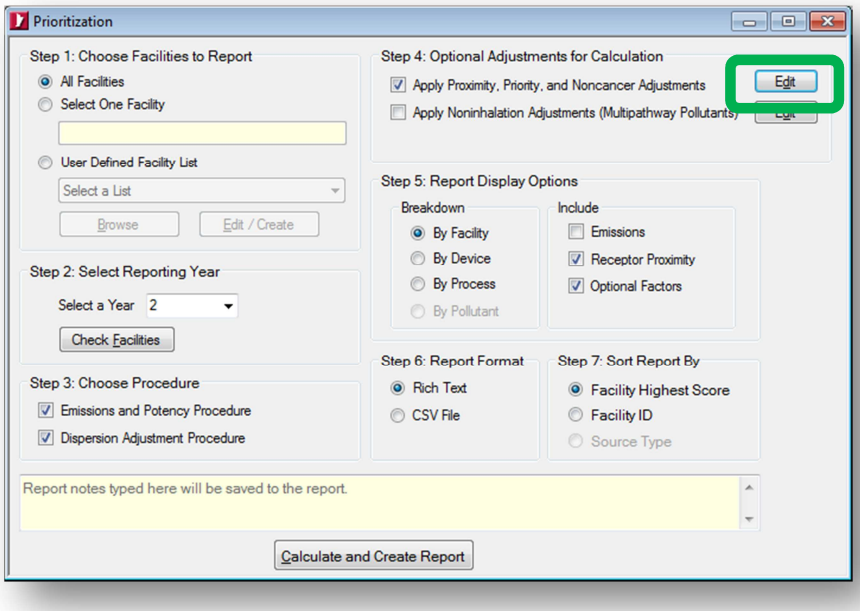
This adjustment factor is intended to provide additional weighting for receptor proximities that are less than or equal to 50 meters. This factor is multiplied with the total priority score and a zero of this factor is treated as one. By default, receptor proximities that are between zero and less than 100 meters use one for the adjustment factor. For more information, see Appendix C and F in the CAPCOA Air Toxics "Hot Spots" Program Facility Prioritization Guidelines.

You can view and edit this factor by selecting the facility of interest in the ***Facility Data Entry Screen*** and clicking on the ***Priority Calculation*** node. Then click ***Edit*** next to the ***Apply Priority, Proximity, and Noncancer Adjustments*** check box under ***Advanced Option***.

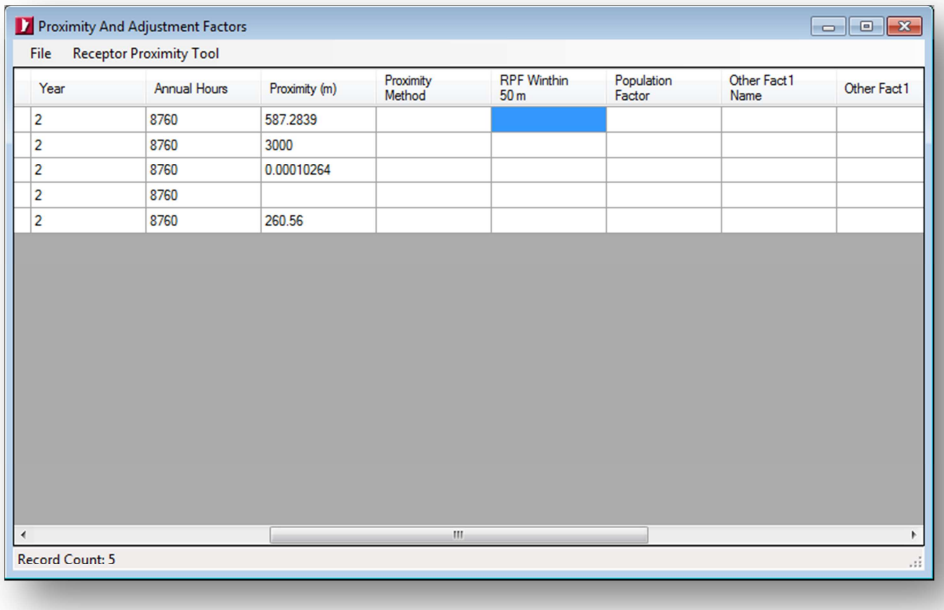




You can also view this factor for multiple facilities by selecting ***Reports\Prioritization*** from the main menu. In the ***Prioritization*** window, click ***Edit*** next to the ***Apply Proximity, Priority, and Noncancer Adjustments*** check box under ***Advanced Option***.



Then scroll to the ***RPF within 50m*** column.

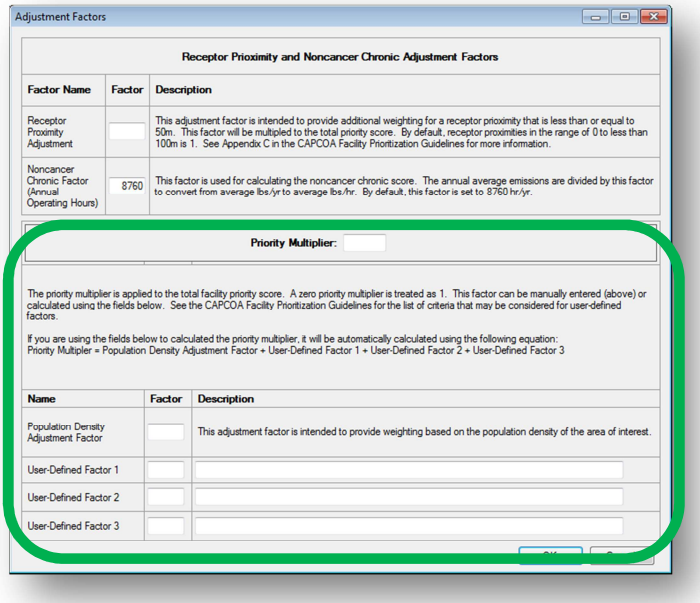


Priority Multiplier

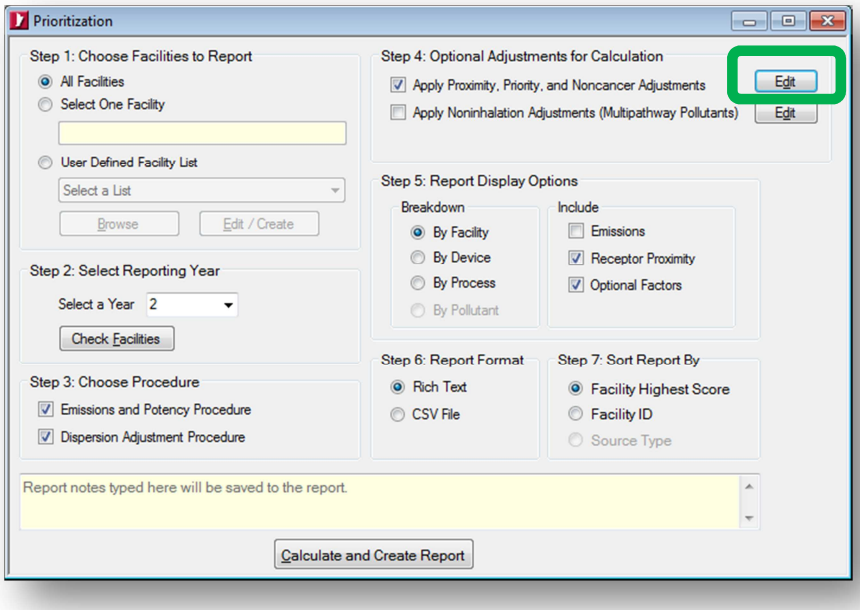
The priority multiplier provides additional weight to the total priority score. In the HARP EIM, this factor can be manually entered or calculated using the following equation below. The user-defined factors can be any one of the criteria as defined in the CAPCOA Air Toxics "Hot Spots" Program Facility Prioritization Guidelines. A zero priority multiplier is treated as one in the calculation.

Priority Multiplier = Population Density Adjustment Factor + User-Defined Factor 1 + User-Defined Factor 2 + User-Defined Factor 3

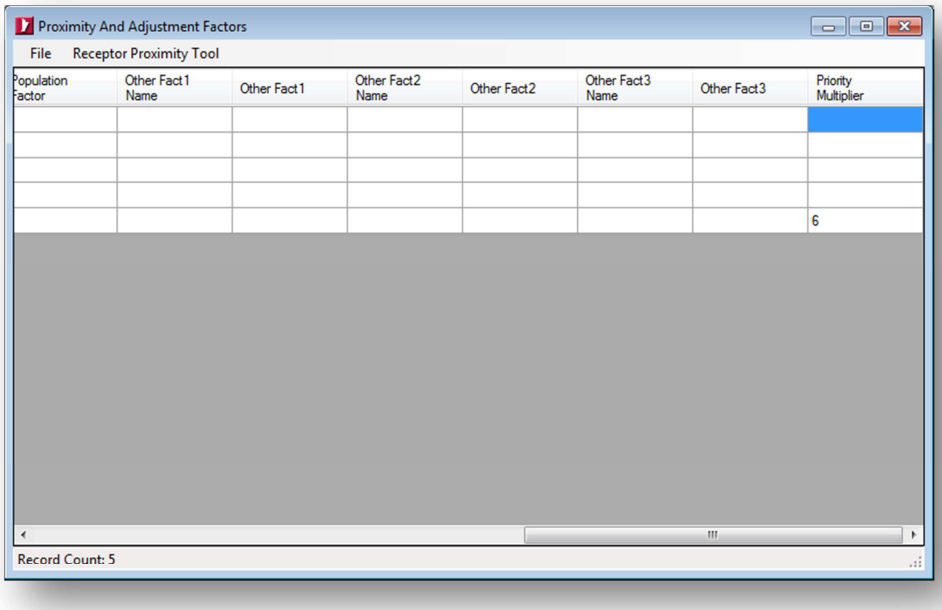
You can view and edit this factor by selecting the facility of interest in the ***Facility Data Entry Screen*** and clicking on the ***Priority Calculation*** node. Then click ***Edit*** next to the ***Apply Priority, Proximity, and Noncancer Adjustments*** check box.



You can also view and edit this factor for multiple facilities by selecting ***Reports\Prioritization*** from the main menu. In the ***Prioritization*** window, click ***Edit*** next to the ***Apply Proximity, Priority, and Noncancer Adjustments*** check box.



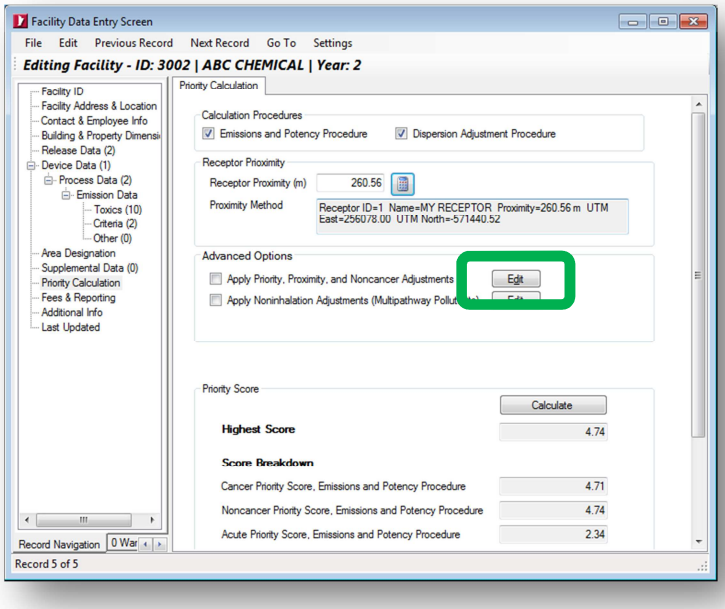
Then scroll to the ***Priority Multiplier*** column.

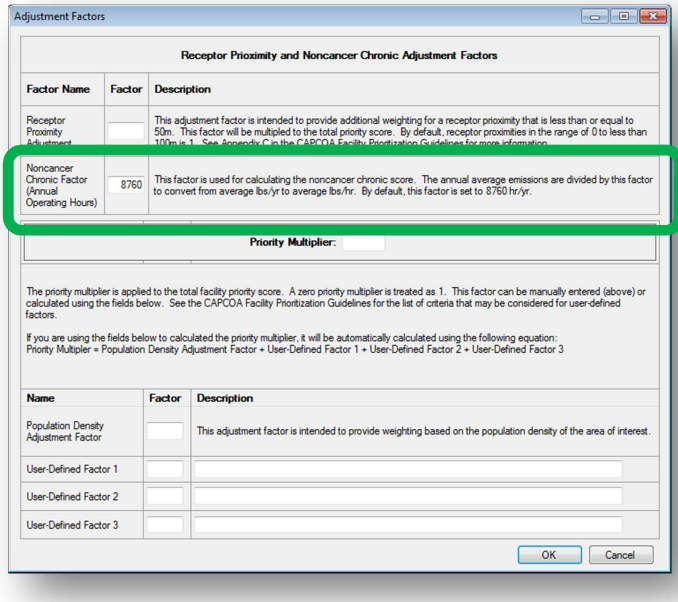


Noncancer Adjustment Factor

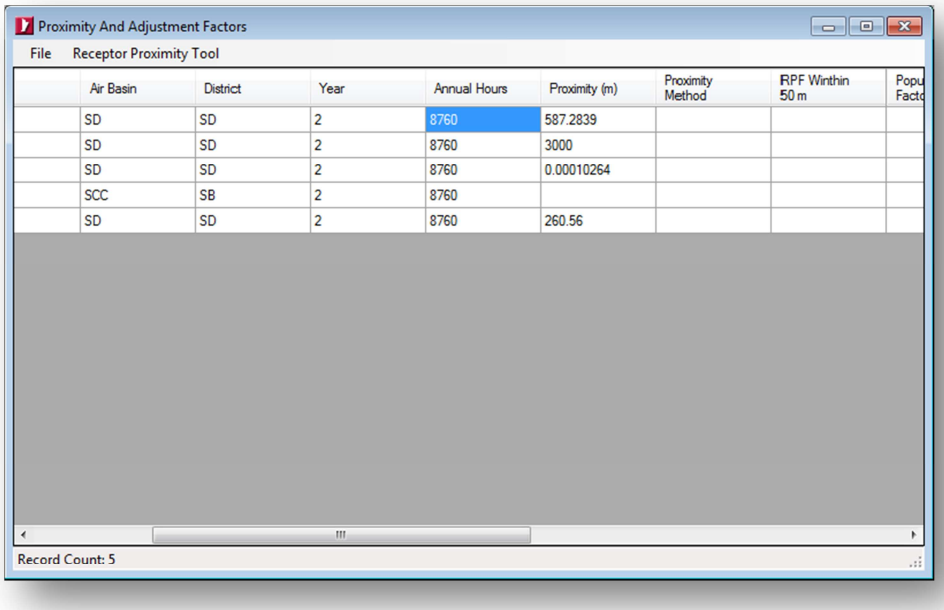
This factor is used for calculating the noncancer chronic score. The annual average emissions are divided by this factor to convert from average lbs/yr to average lbs/hr. By default, this factor is set to 8760 hours per year.

You can view and edit this factor by selecting the facility of interest in the ***Facility Data Entry Screen*** and clicking on the ***Priority Calculation*** node. Then click ***Edit*** next to the ***Apply Priority, Proximity, and Noncancer Adjustments*** check box.





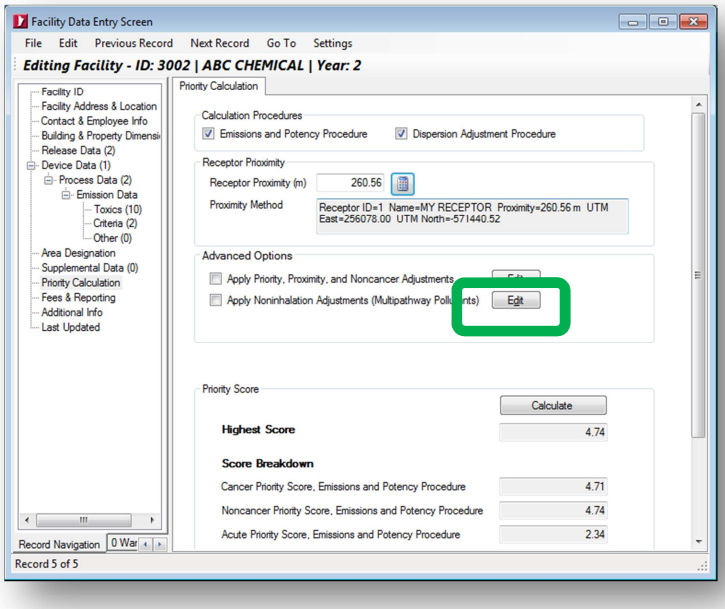
You can also view and edit this factor for multiple facilities by selecting ***Reports\Prioritization*** from the main menu. In the ***Prioritization*** window, click the ***Edit*** button and scroll to the ***Annual Hours*** column.

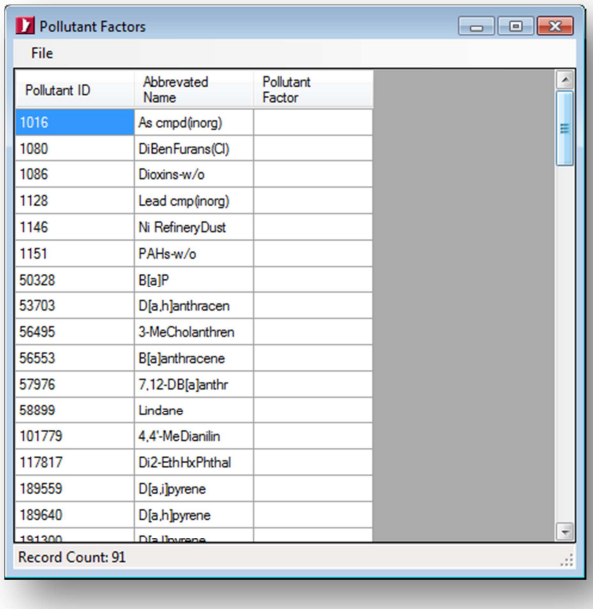


Noninhalation (Pollutant Specific) Adjustment Factors

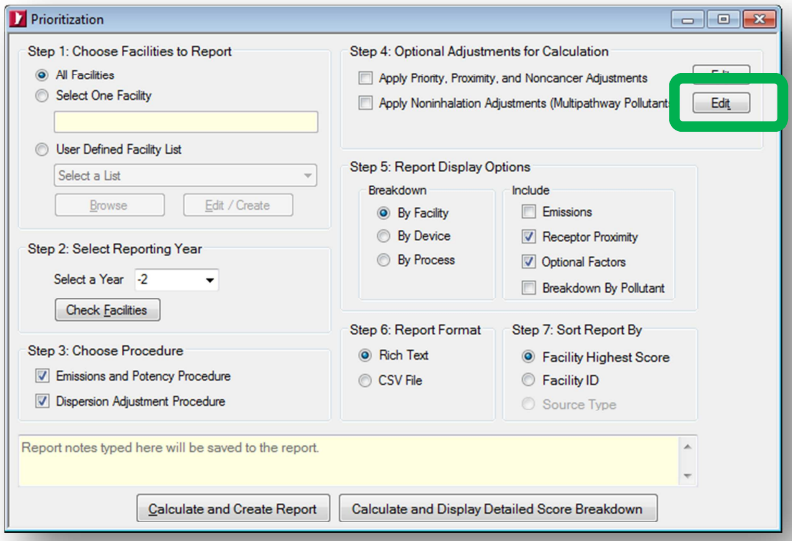
This factor is used to give priority to the importance of noninhalation exposure for substances emitted by the facility. A zero of this factor is treated as one in the calculation. Factors can be applied to multipathway pollutants.

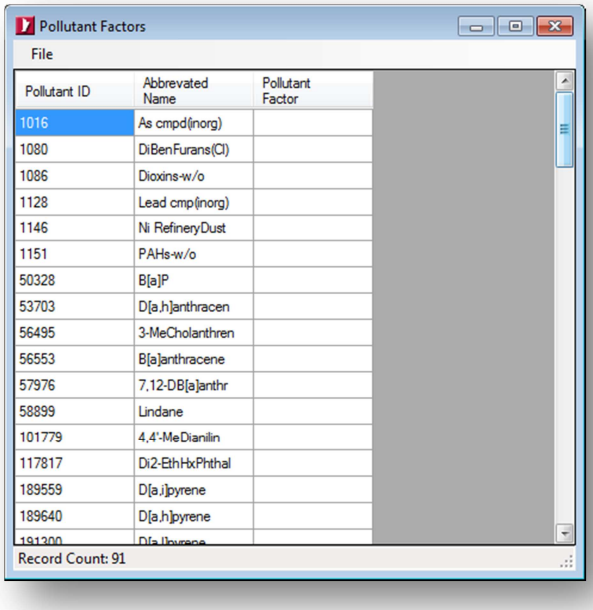
You can view and edit this factor by selecting the facility of interest in the ***Facility Data Entry Screen*** and clicking on the ***Priority Calculation*** node. Then click ***Edit*** next to the ***Apply Noninhalation Adjustments (Multipathway)*** check box.





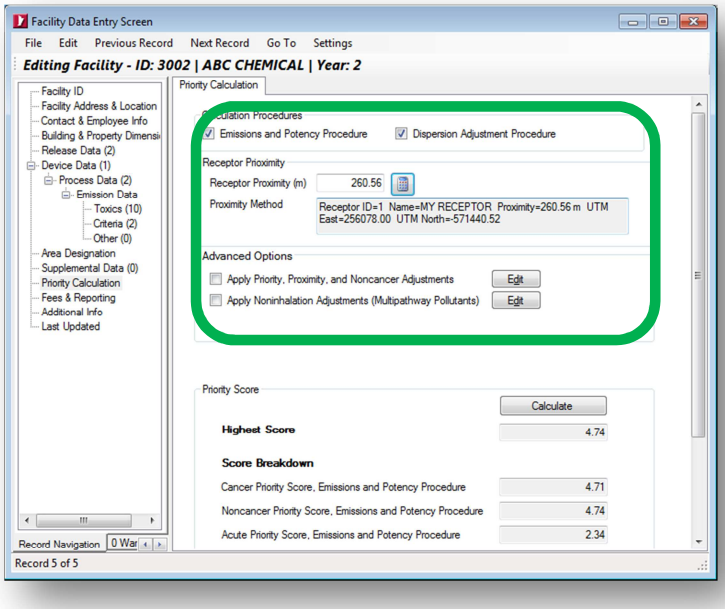
You can also view and edit this factor for multiple facilities by selecting ***Reports\Prioritization*** from the main menu. In the ***Prioritization*** window, click ***Edit*** next to the ***Apply Noninhalation Adjustments (Multipathway Pollutants)*** check box.



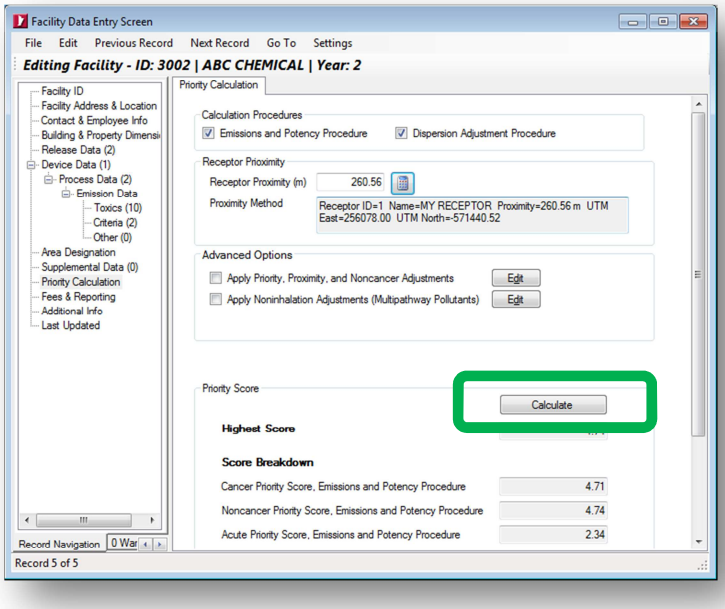


iv. Calculating the Prioritization Score

To calculate the prioritization score for a single facility, select the facility of interest in the ***Facility Data Entry Screen*** and clicking on the ***Priority Calculation*** node. Select the calculation method and adjustment options.

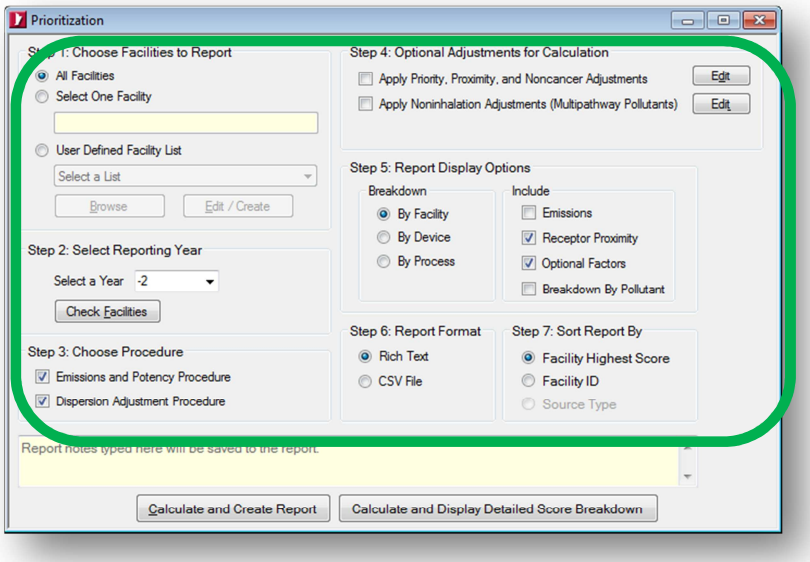


Click ***Calculate***.

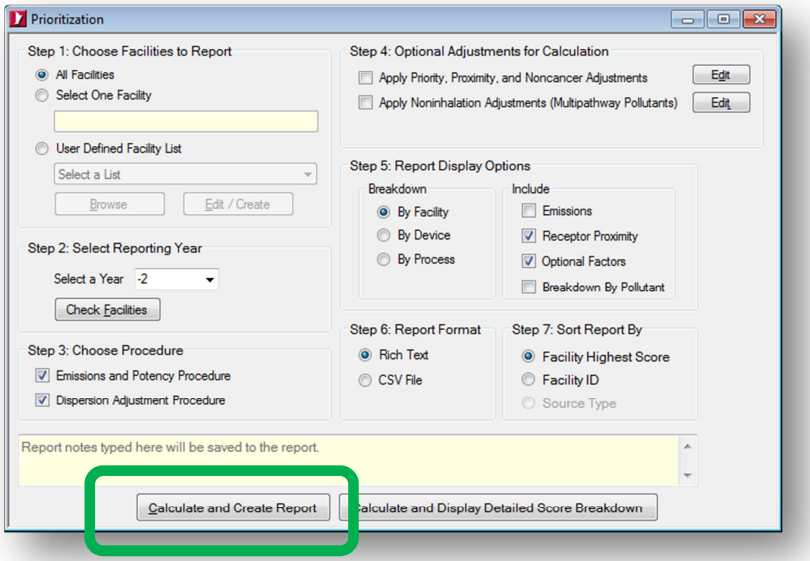


Please note that the facility prioritization scores can only be printed under the report option in the main menu of the HARP EIM.

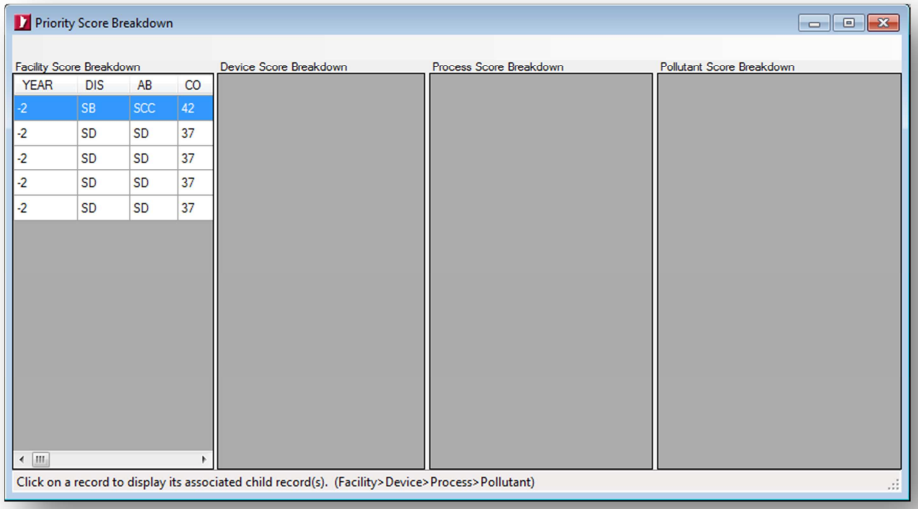
To print and calculate the prioritization scores for an individual or group of facilities, ***Reports\Prioritization*** from the main menu. In the ***Prioritization*** window, select the calculation method and adjustment options.



Then click ***Calculate and Create Report***.

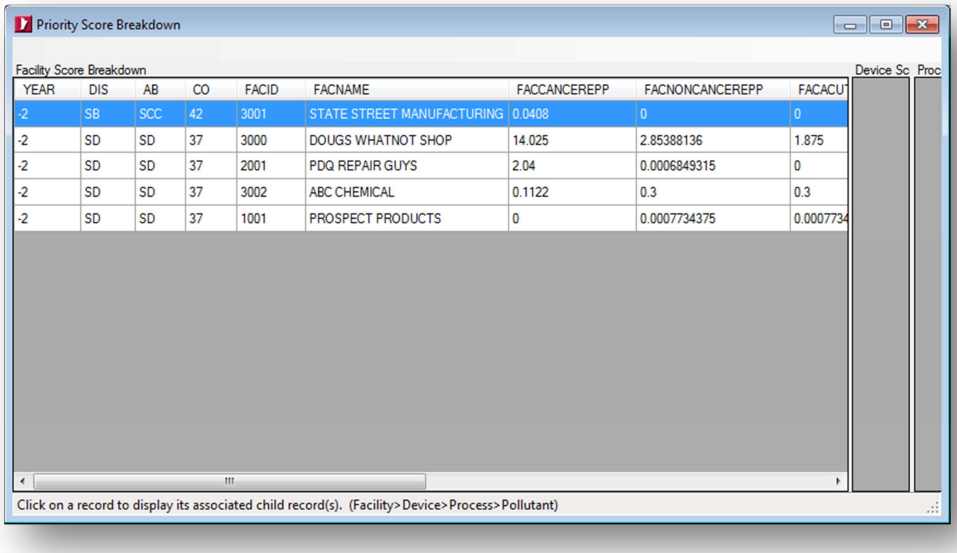


To view a detailed score breakdown, click ***Calculate and Display Detailed Score Breakdown***.

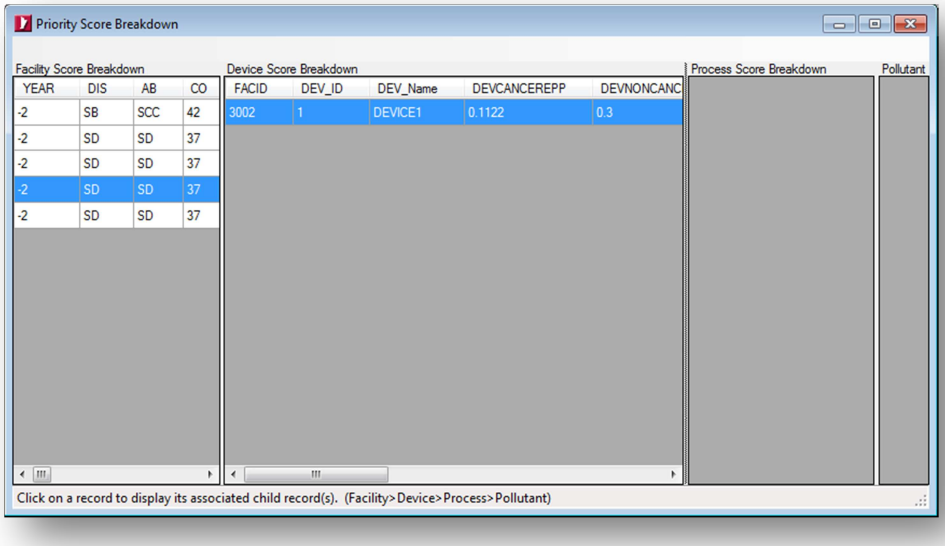


This screen will allow you to see a breakdown of the facility prioritization score at the device, process, and emission levels. Each of the four panels may be resized to see more or less of the data. Each column may be sorted by clicking on it.

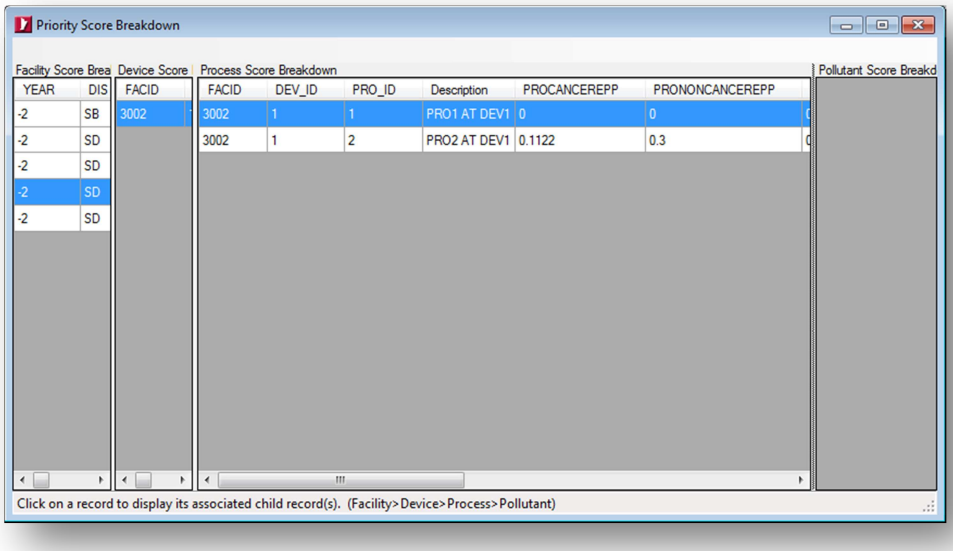
The first column displays the prioritization score at the facility level.



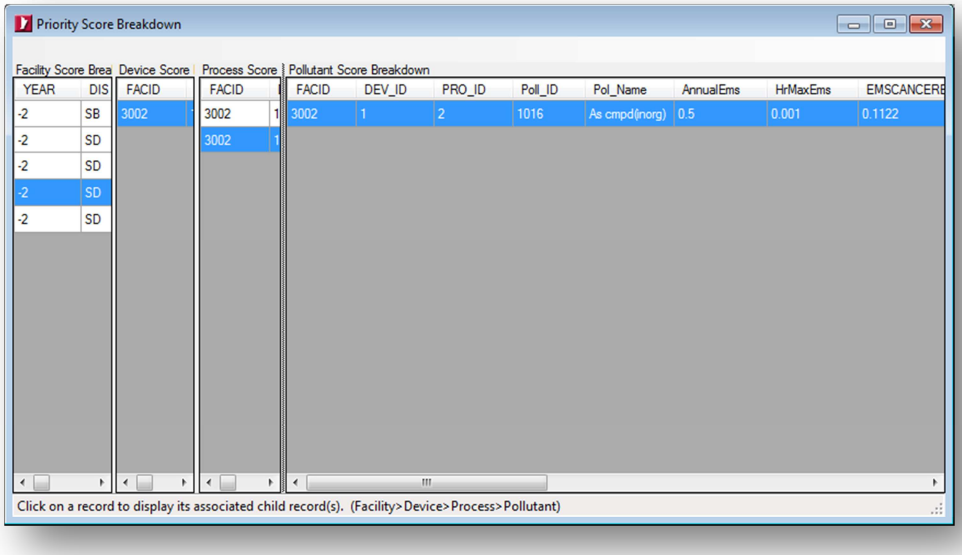
Select a record to view the score breakdown at the device level.



Select a record to view the score breakdown at the process level.



Select a record to view the score breakdown at the emission level.



14. EXPORTING DATA

This section describes how to export emission inventory data. Emission inventory data can be exported to a CEIDARS 2.5 Transaction File or a HARP database. The CEIDARS 2.5 transaction file format is described in the CEIDARS Data Dictionary at http://www.arb.ca.gov/app/emsinv/dist/doc/datadict.pdf.

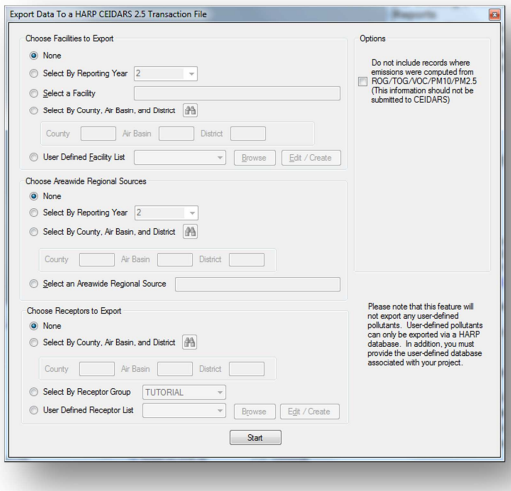
a. Transaction File versus HARP Database

A transaction file is a CSV file based on the CEIDARS 2.5 transaction file format. It is also the same format used by the previous HARP version. If you are sharing data between different HARP versions, it is better to use a transaction file.

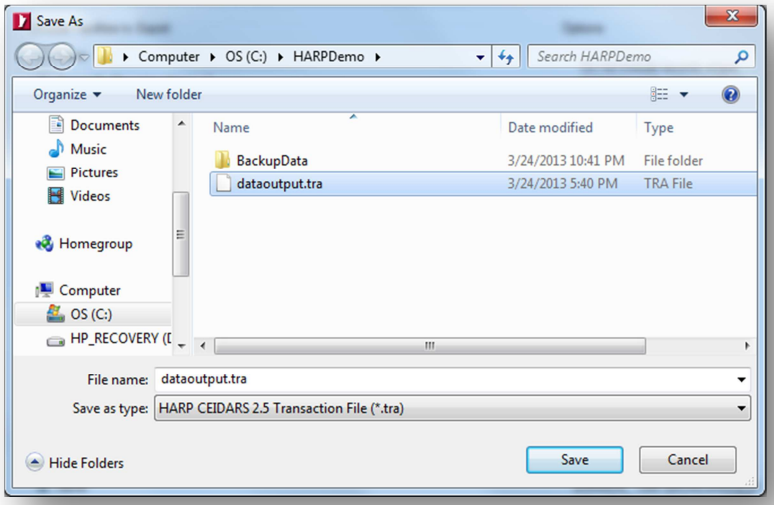
A HARP database is essentially a copy of the HARP user database except you can choose during the export process which data you wish to share. This database can also be connected directly by HARP without having to import the data. The HARP database also contains more inventory information that is not part of a transaction file.

b. Export to a CEIDARS Transaction File

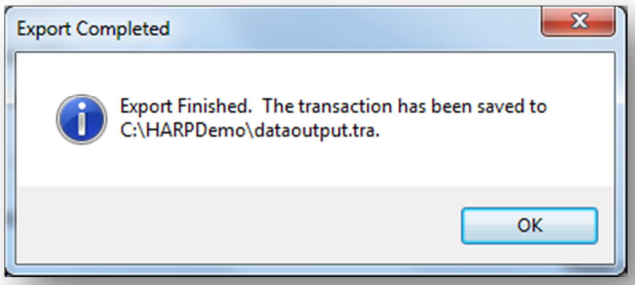
To export to a HARP CEIDARS 2.5 Transaction File, select ***Export Data\Export to HARP CEIDARS 2.5 Transaction File*** in the main menu. The data can be exported by selecting a reporting year; selecting a county, air basin, or district ID; or by using a user-defined list. Select the options on how you want to export the data. Click ***Start***.



In the Save As Dialog Box, browse and enter a filename. Click ***Save***.

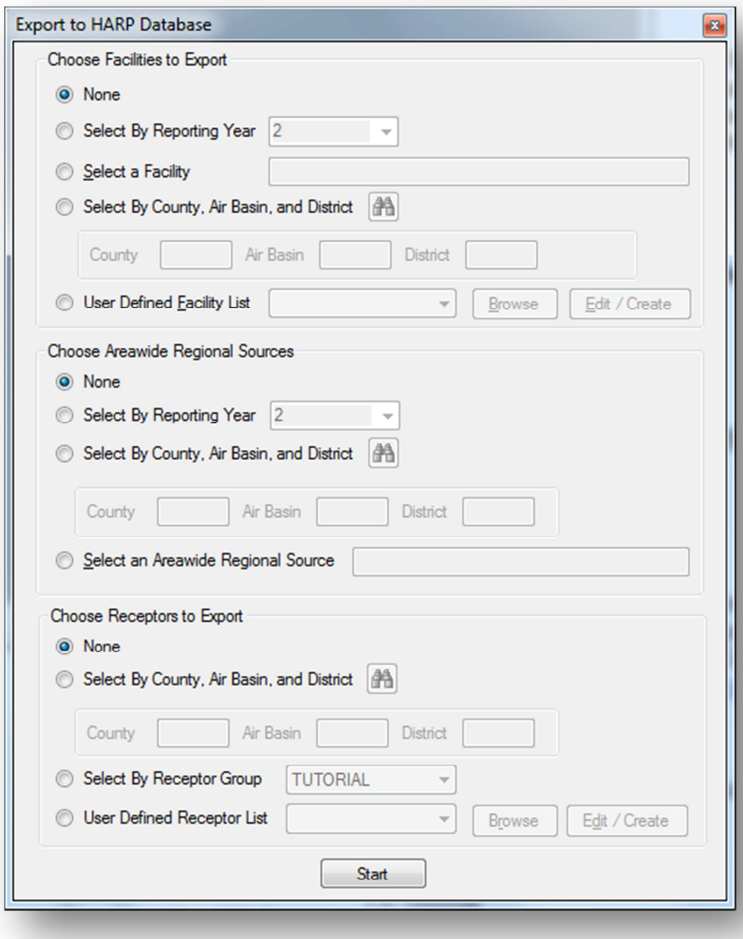


When the export is finished, a confirmation message will appear showing the location of the exported database. A copy of the file will be saved to the project. The filename will also appear in the ***Output & Additional Files*** node in the ***Project Panel***.

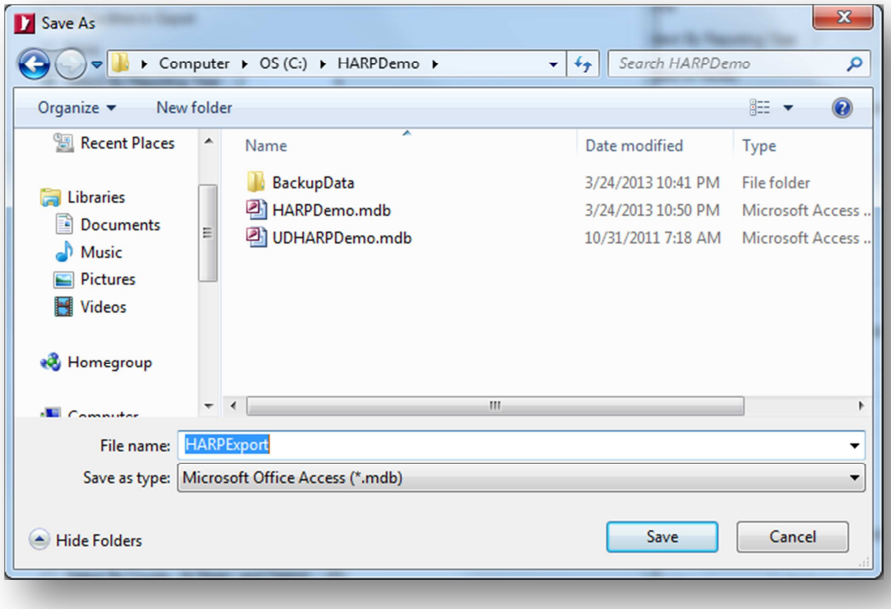


c. Export to a HARP Database

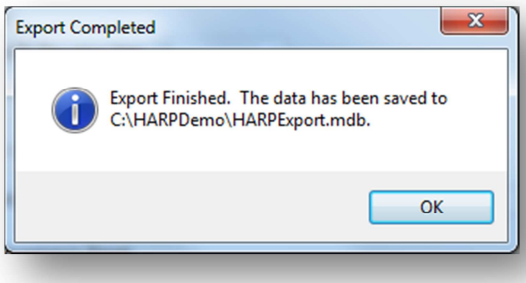
To export to a HARP database, select ***Export Data\Export to HARP Database*** in the main menu. The data can be exported by selecting a reporting year; selecting a county, air basin, or district ID; or by using a user-defined list. Select the options on how you want to export the data. Click ***Start***.



In the Save As Dialog Box, browse and enter an filename. Click ***Save***.



When the export is finished, a confirmation message will appear showing the location of the exported database. A copy of the file will be saved to the project. The filename will also appear in the ***Output & Additional Files*** node in the ***Project Panel***.



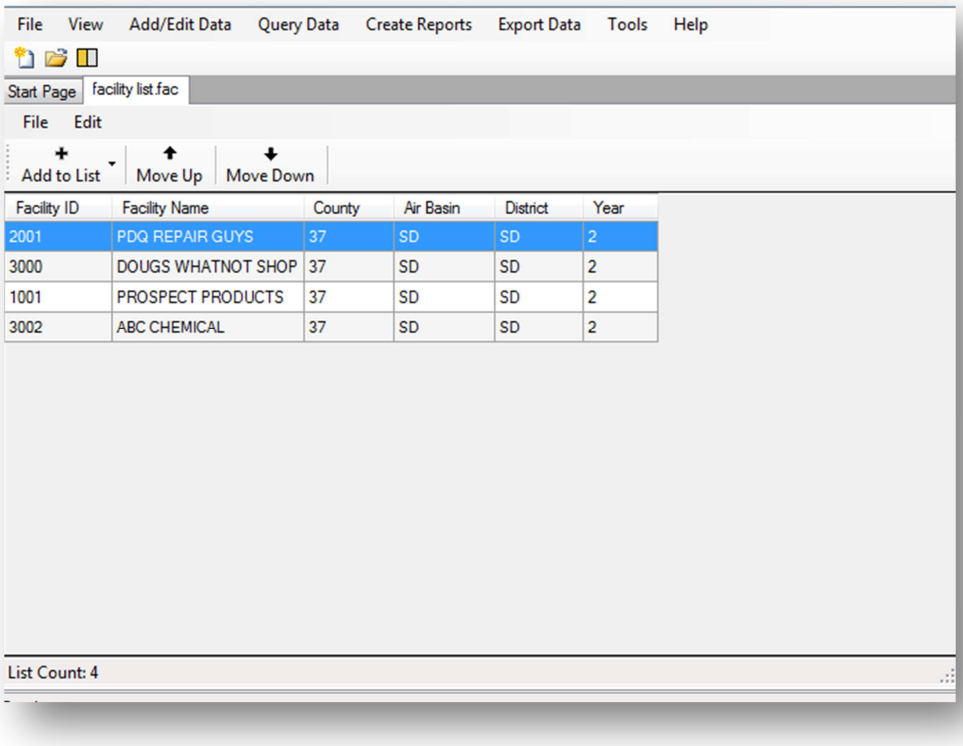
15. ADVANCED FEATURES

This section describes some of the advanced features and tools that are available in the HARP EIM.

a. User-Defined Lists

User-defined lists are used to help automate some of the features (e.g., creating reports or exporting data) in the HARP EIM. There are three types of user-defined lists available which include facility, pollutant, and receptor lists.

To create a user-defined list, select ***Tools\Create User-Defined List*** in the main menu and select the list type. Lists can also be created in the explorer screens.

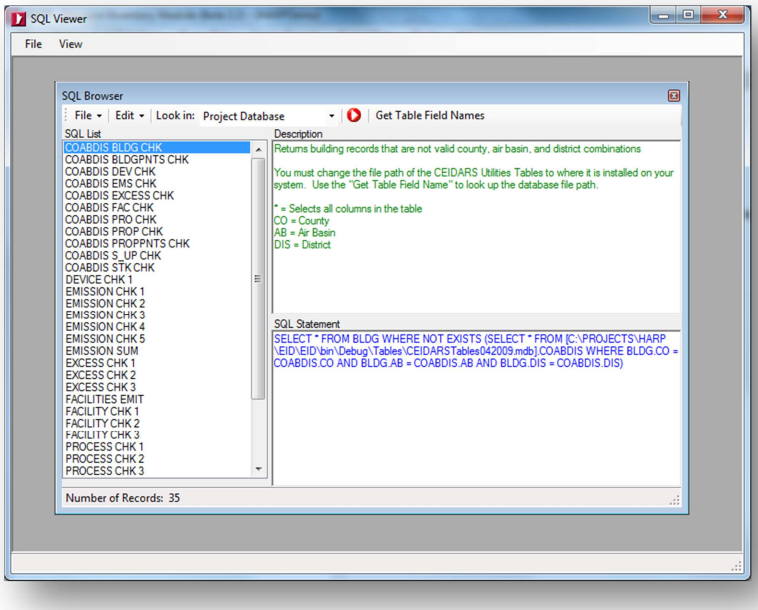


The table below describes the menu options in the ***List***.

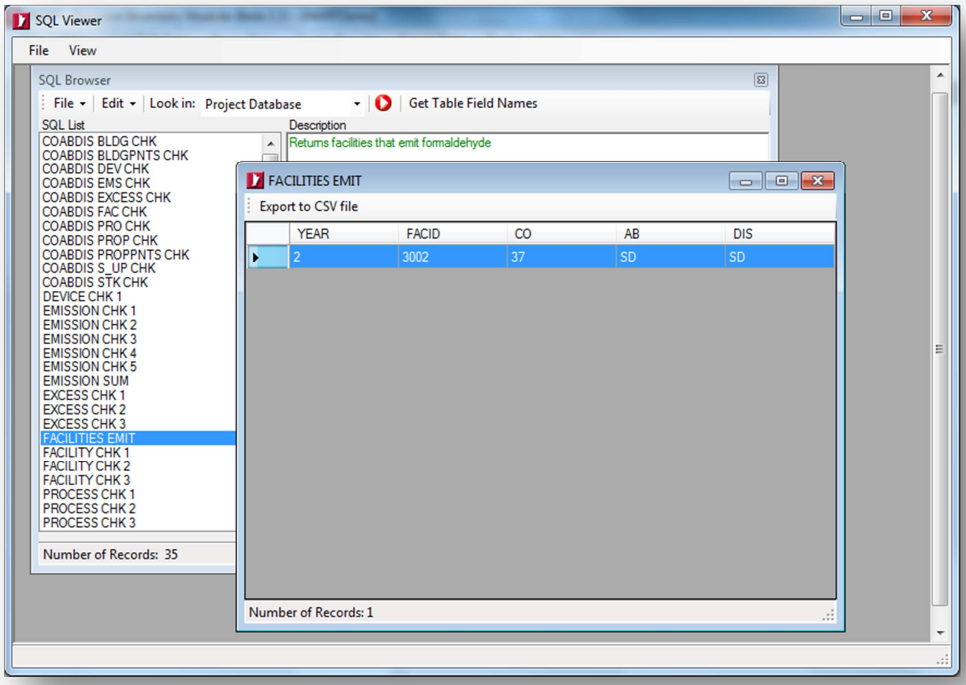
Name	Description
File\Save	Saves the list
File\Save As	Saves the list under a new filename
File\Import List	Append a list to the current list
Edit\Restore List	Restores changes made to the list
Edit\Clear List	Clears the list of all data
Edit\Delete	Deletes the current focused record from the list
Edit\Remove Duplicates	Removes duplicate entries from the list
Edit\Select All Rows	Selects all rows on the list
Add to List\Select from Database	Add records by selecting records in the user database
Add to List\Select by CO/AB/DIS	Add records by selecting the county, air basin, or district id
Add to List\Select by Radius	Add records within the range of a facility origin or receptor location
Move Up	Moves the select row up one spot
Move Down	Moves the select row down one spot

b. SQL Viewer

The SQL Viewer is essentially a SQL client that allows you to run SELECT, UPDATE, DELETE, and INSERT statements against your user database. Data retrieved from this tool can be exported to a CSV file. In order to use this tool, you should have experience using SQL. To access the SQL Viewer, select ***Tools\Database Utilities\SQL Viewer*** in the main menu.



When the SQL Viewer opens, the ***SQL Browser*** appears in the center of the window. The SQL Browser is designed to help you build SQL statements and displays a list of prebuilt queries (left panel). The prebuilt queries are the same ones available in the query screens; however, you can directly edit the queries or create new default queries in this screen.



The table below describes the menu options in the ***SQL Browser***.

Name	Description
File\New Query	Select from a list of prebuilt queries
File\Save	Saves the query
File\Save As	Saves the query under a new filename
Edit\Delete Query	Deletes a query
Look in	Selects the database to run the query against
Run Query	Executes the query
Get Table Field Names	A lookup tool to help build a query. The user can view the available table and column names in the database.

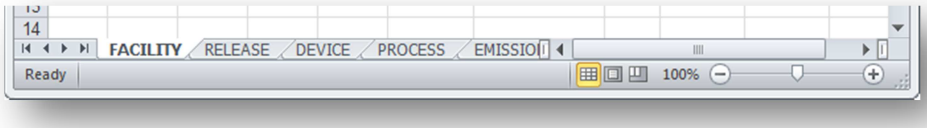
c. Importing Data Using a Microsoft Excel Spreadsheet

The ***Facility Data Entry Screen*** has the ability to import facility and emission data using a Microsoft Excel 2000-2003 Spreadsheet. While you can import multiple facilities using a spreadsheet, this program is currently setup to only allow you to import release, device, process, and emission data for a single facility at a time. This section describes how to setup a spreadsheet and how to import the data into the ***Facility Data Entry Screen***.

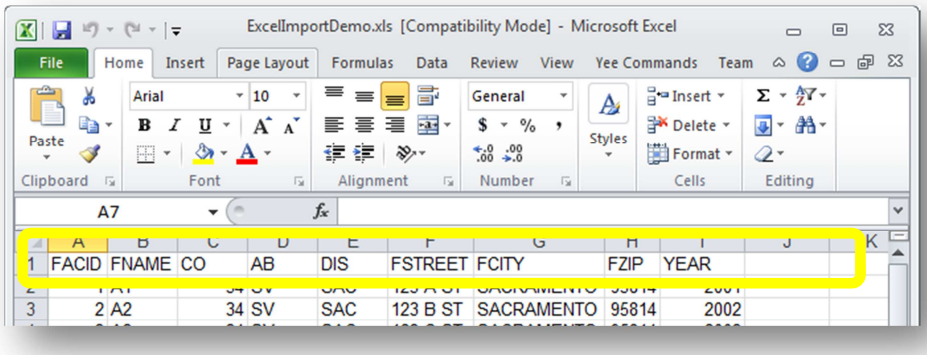
i. Setting up an Excel File

Unlike a CEIDARS 2.5 transaction file, data imported via a spreadsheet provides some flexibility. In the spreadsheet, data fields can be out-of-order and not every field as defined in the CEIDARS 2.5 transaction format is needed.

To setup the spreadsheet, open a blank spreadsheet. It is recommended that you create at least five worksheets and rename each worksheet according to the data type (i.e., facility, release, device, process, and emissions). This will help you identify which worksheet belongs with which data type when the spreadsheet is imported into the HARP EIM.



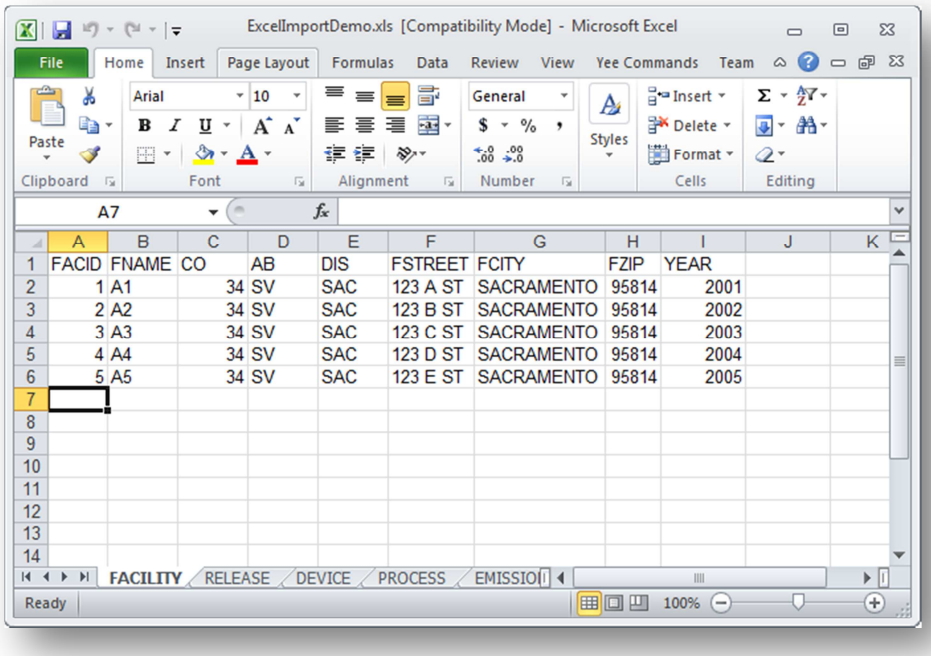
Next, refer to the CEIDARS 2.5 transaction format to see the list field names and descriptions. The transaction format can be found in the CEIDARS DATA Dictionary at http://www.arb.ca.gov/app/emsinv/dist/doc/datadict.pdf. Field names should be entered in to the first row of the worksheet. This is how the HARP EIM will recognize and parse the data in the worksheet.



The table below lists the required files by data type.

Data Type	Required Fields
Facility	FACID = facility ID, YEAR = reporting year, CO = county, AB = air basin, DIS = District
Release	STK = release ID
Device	DEV = device ID
Process	DEV = device ID, PROID = process ID
Emissions	POL = pollutant ID, DEV = Device ID , PROID = process ID

Next, add your data in the subsequent rows under the appropriate field names. Then save your spreadsheet.

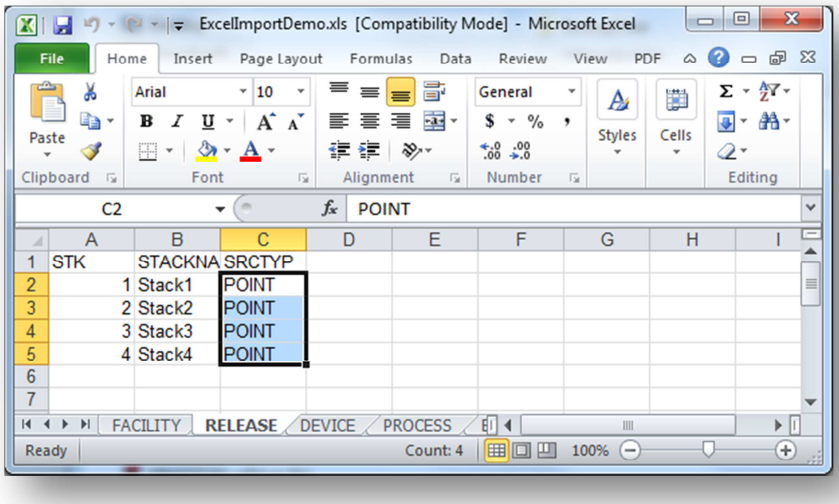


ii. Excel Import Instructions

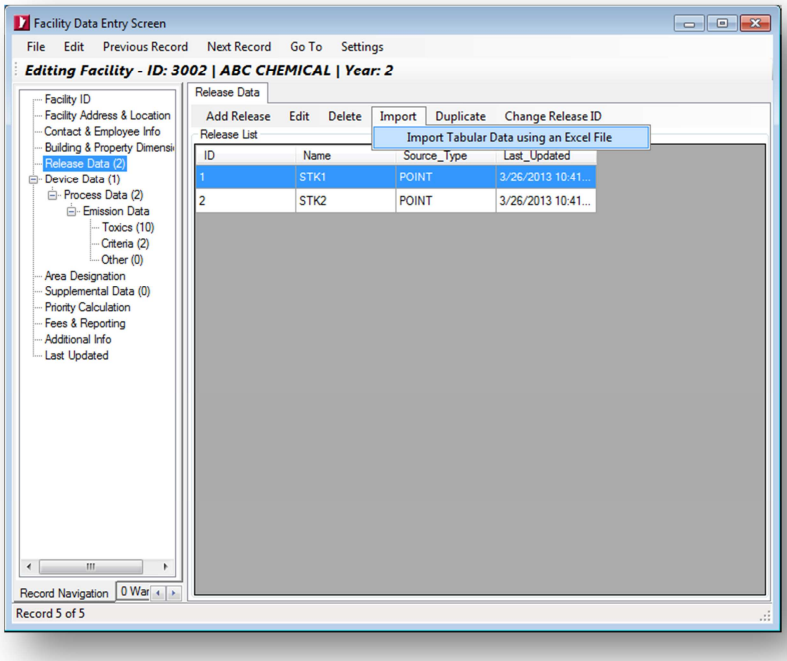
The table below lists how to access the import feature by data type.

Data Type	**How to access the import feature**
Facility	***File\Import Facility Data…\Import Tabular Data using an Excel File*** in the main menu of the ***Facility Data Entry Screen***
Release	Click on the ***Release*** node in the ***Facility Data Entry Screen***. Click ***Import Data\ Import Tabular Data using an Excel File***
Device	Click on the ***Device*** node in the ***Facility Data Entry Screen***. Click ***Import Data\ Import Tabular Data using an Excel File***
Process	Click on the ***Process*** node in the ***Facility Data Entry Screen***. Click ***Import Data\ Import Tabular Data using an Excel File***
Emissions	Click on the one of the nodes (i.e., ***Toxics***, ***Criteria***, ***Other***) under ***Emission Data*** in the ***Facility Data Entry Screen***. Click ***Import Data\Import Tabular Data using an Excel File***

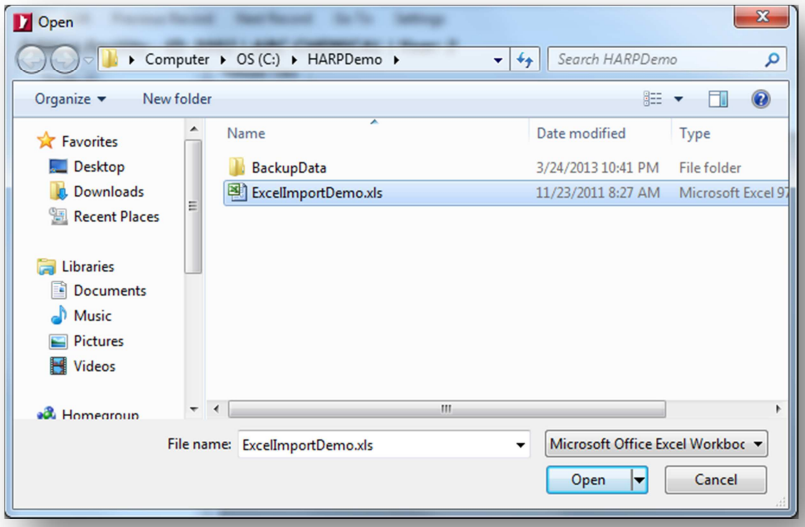
The steps for each data type are essentially identical. This section shows how to import release data from a spreadsheet.



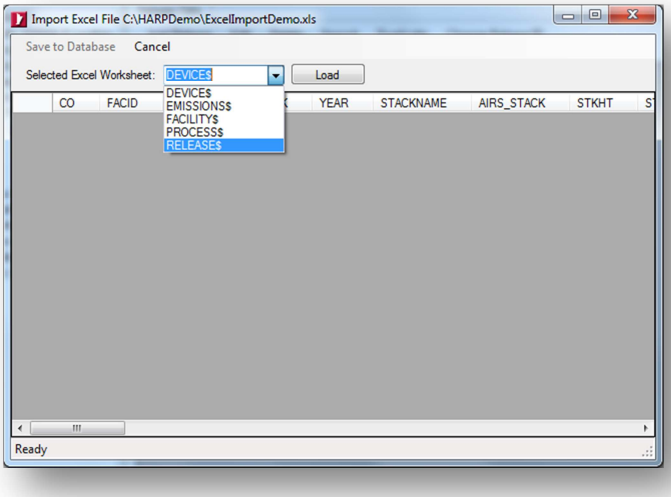
Click on the ***Release*** node in the ***Facility Data Entry Screen***. Click ***Import Data\ Import Tabular Data using an Excel File***.



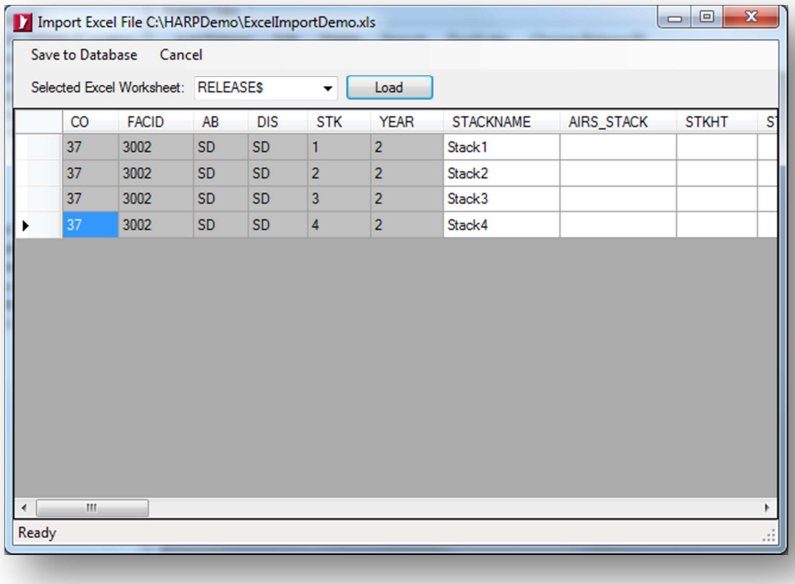
Browse and select the spreadsheet. Click ***Open***.



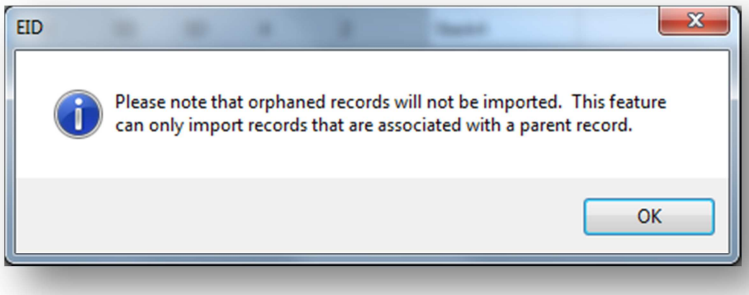
Select the worksheet containing the release data in the drop-down box and click ***Load***.



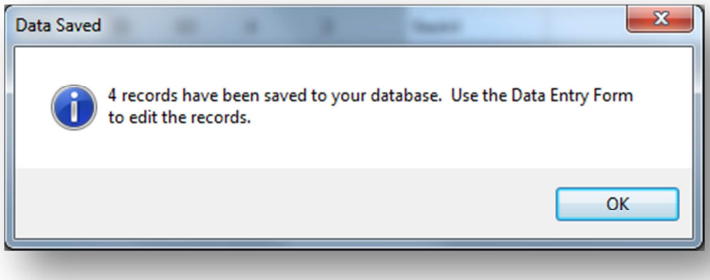
The program will load the release data into the data grid. The primary keys based on the parent facility record will be automatically filled in. At this time, you may fill in any blank fields before saving the information to the database. Please note that any existing records with the same primary keys will be overwritten. Click ***Save to Database*** to import the release data.



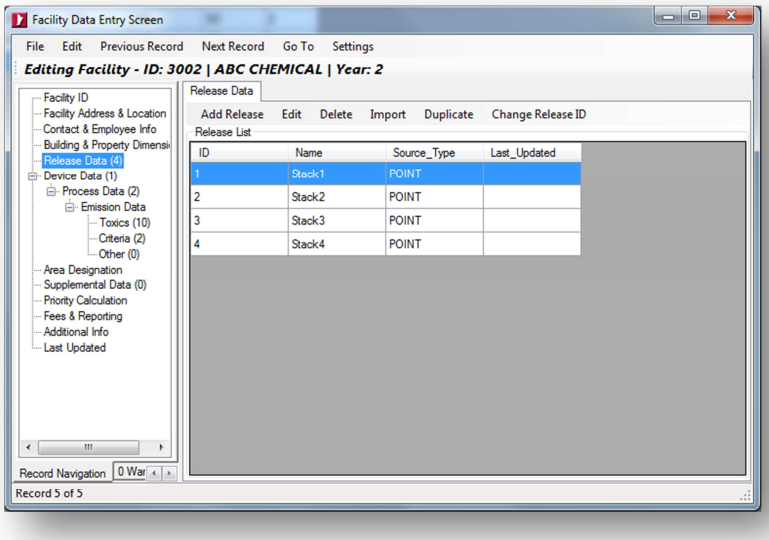
You will receive an informational message about orphaned records. Orphaned records are not associated with the parent facility record. This means the primary keys used to identify a facility record do not match with the primary keys of a release record. Click ***OK*** to continue.



You will receive a confirmation message that the data has been saved. Click ***OK*** to continue.



Finally, verify that the release data has been saved in the ***Facility Data Entry Screen***.

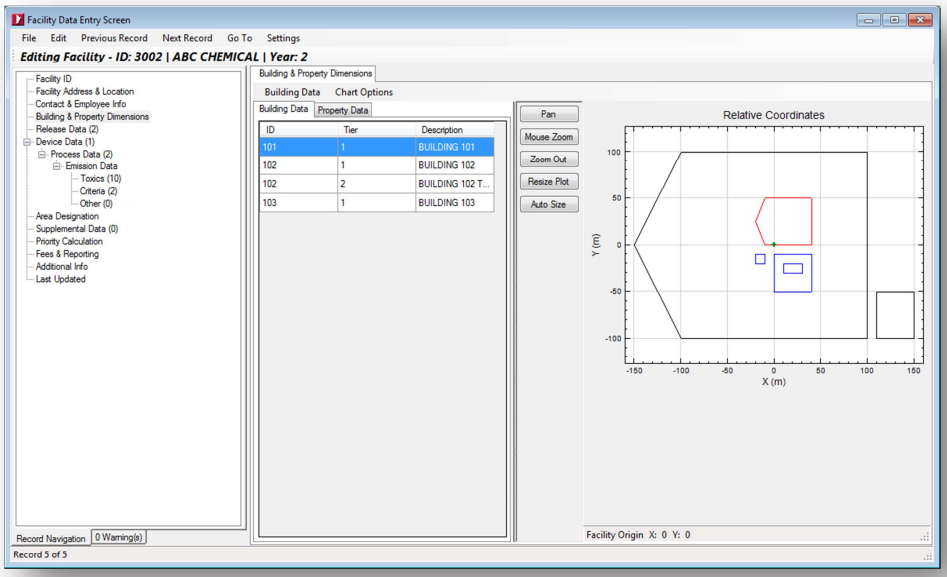


d. Exporting a Keyhole Markup Language File

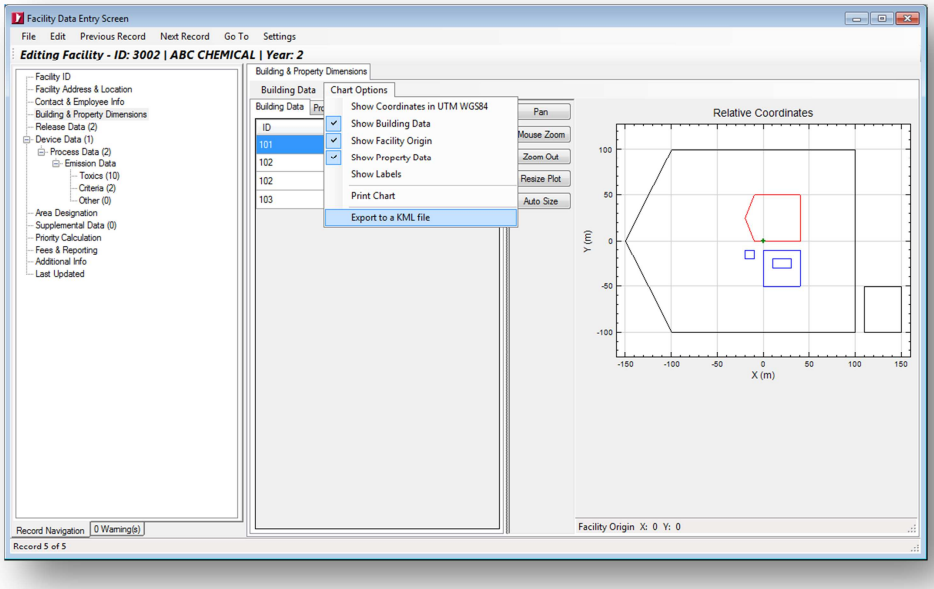
Keyhole Markup Language File (KML) is an Extensible Markup Language (XML)-based language for managing and storing geospatial data. KML is an open standard for all geobrowsers. The HARP EIM also uses KML files as a way to verify that the facility property and building boundaries are correct using a geobrowser like Google Earth.

At this time, the ***Facility Data Entry Screen*** is the only area where you can export a single facility geospatial data (i.e., facility origin, release locations, property, and building boundaries) to KML file.

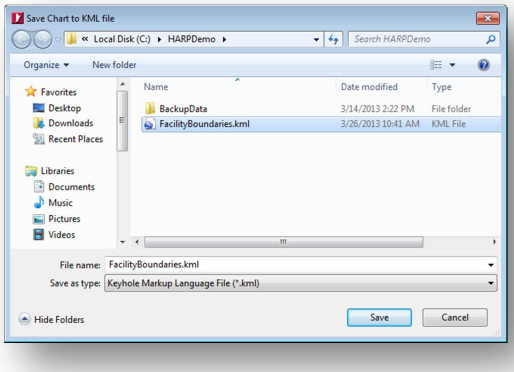
To export your facility information to a KML file, select the ***Building & Property Dimensions*** node in ***Facility Data Entry Screen***.



Next, select ***Chart Options\Export to a KML file*** in the ***Building & Property Dimensions*** tab page.



Then specify a filename and click ***Save***.

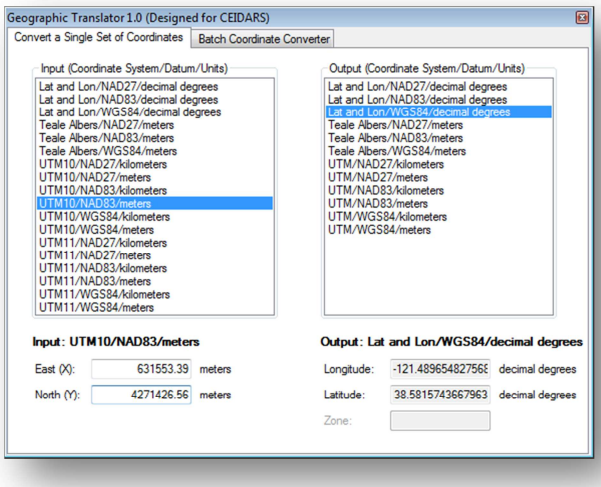


If a geobrowser like Google Earth is already installed on your desktop, you can double-click on the file to open it. Otherwise, please refer to your geobrowser instructions on how to load the KML file.

e. GeoTranslator

The GeoTranslator is a tool designed to convert coordinates from one system to another. However, the coordinate systems available are restricted to the systems used by CEIDARS. This tool is included as part of the HARP EIM installation package and can be accessed outside of the HARP EIM. To open this program, there is a shortcut in the HARP folder on your desktop. The tool may also be accessed under ***Tools\GeoTranslator*** in the main menu of the HARP EIM.

Please refer to GeoTranslator's internal help screen for more information on batch processing.

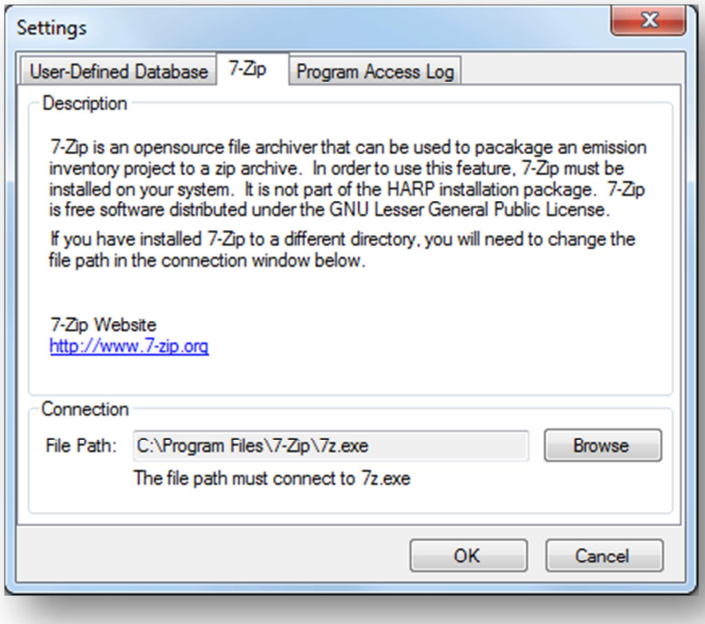


f. Creating a Zip Archive

The HARP EIM has the ability to compile a project to a zip file so it can be easily shared between HARP users. This feature essentially takes the guess work out of what is needed to be saved. However, in order to use this feature, 7-Zip must be installed to your desktop. 7-Zip is an open source file archiving tool and is free software under the GNU Lesser General Public License.

To zip a project, select ***Tools\Add Project to Zip Archive*** in the main menu of the HARP EIM and then select a location where to save your project.

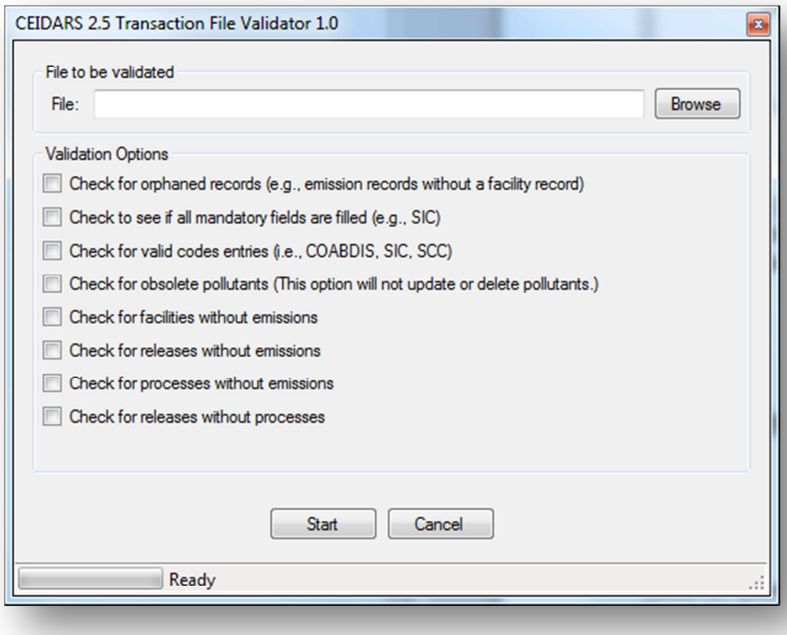
If 7-Zip is installed to another location on your desktop, you will need to adjust the program settings to point to the correct location on your desktop. The file path must connect to a file called ***7z.exe***. To change the file path settings for 7-Zip, select ***Tools\Settings*** and click on the ***7-Zip*** tab. Click ***Browse*** and find the location of the file called ***7z.exe***.



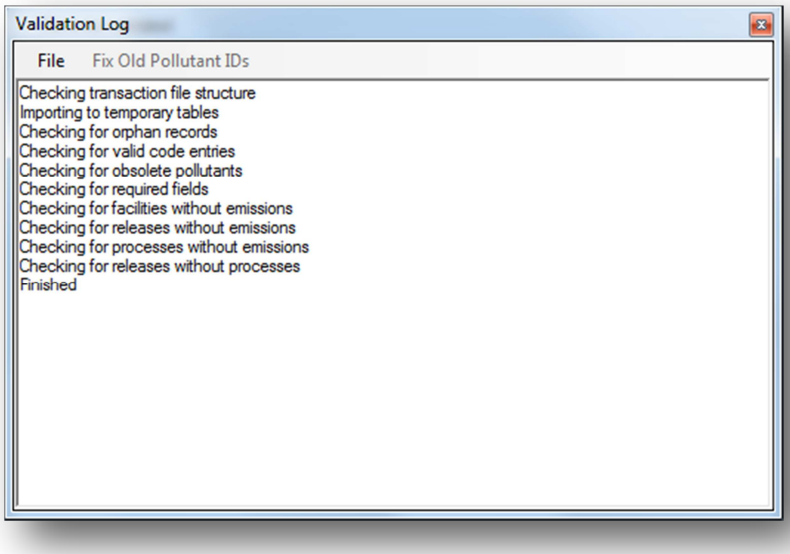
g. HARP CEIDARS 2.5 Validation Tool

The HARP CEIDARS 2.5 Validation Tool is a tool for validating transaction files based on the CEIDARS 2.5 file format. This tool is included as part of the HARP EIM installation package and can be accessed outside of the HARP EIM. To open this program, there is a shortcut in the HARP folder on your desktop. The tool may also be

accessed under ***Tools\Validate a HARP CEIDARS 2.5 Transaction File*** in the main menu of the HARP EIM.



To use this program, click **Browse** and select a CEIDARS 2.5 transaction file. Check the validation options you want the tool to perform in the screen. Then click ***Start*** to begin the validation. When completed, a log screen will appear. Any errors detected will be displayed in the log screen.



16. TECHNICAL SUPPORT

For technical assistance, please send an email to harp@arb.ca.gov.